

ANNUAL REPORT

ON THE

HEALTH AND SANITARY CONDITIONS

OF THE

BOROUGH OF WEYMOUTH & MELCOMBE REGIS,

FOR THE YEAR 1909.

BY

W. B. BARCLAY, L.R.C.P., D.P.H., Etc.

Medical Officer of Health.

WEYMOUTH :
HARRY WHEELER, LTD.,
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To His Worship the Mayor, and to the Aldermen and Councillors of the Borough of Weymouth and Melcombe Regis, and to the Education Committee of the same.

WEYMOUTH,
January, 1910.

LADIES AND GENTLEMEN,

In accordance with Section XIV. of Art. 18 of the Local Government Order as to the Duties of the Medical Officer of Health, I have the honor of submitting to you my Fifth Annual Report on the health of the District.

In a memorandum issued by the Medical Officer to the Local Government Board, of date Nov., 1908, the following paragraphs occur, which of themselves are explanatory of the course adopted in the Report, as I have followed strictly the order, in which the subjects upon which information is desired, are detailed :—

“The report should be chiefly concerned with the conditions affecting health in the district and with the means for improving those conditions. It should contain an account, brought up to the end of the year under review, of the sanitary circumstances of the district, and of any improvement or deterioration in these circumstances which may have occurred during the year. Care should be taken to report fully and explicitly on the influences affecting or threatening to affect injuriously the public health in the district, and on the action which has been taken, or which may still be needed, with a view to combat those influences. It is of especial importance that the medical officer of health should record what action has been taken to remedy unhealthy conditions which have been reported by him in previous annual reports, or in special reports presented during the year under review, and that attention should be called afresh, year by year, to such as remain unremedied.

“The following deserve to be especially borne in mind as subjects concerning which the Board desire to obtain, through annual reports of the medical officer of health, not only definite general information, but record also of particular changes of condition that may have occurred incidentally or by action of the local authority.”

In endeavouring to carry out the spirit as well as the letter of the above, it is inevitable that some matters contained in this report will not meet with the unqualified approval of all interested. There is a prevalent idea, that the Health Department can only and should only deal with the remedying of actual abuses. It cannot be too widely known that the principal aim, is prevention, in preference to cure. The actual term should be, the Department of Preventive Medicine.

In the Instructions for the year, issued by the Local Government Board, precise information regarding Inspection of Meat in Slaughter houses is required, and also all action taken regarding tuberculous carcasses or parts of carcasses if any, and whether an Inspector with a special certificate in meat inspection is employed.

In accordance with instructions, copies of this Report have been sent to the Home Office, to the Local Government Board, to the County Council, and to the Board of Education.

The year has been one of exceptionally hard work for the Health Department, as will be seen in the details of the Report.

It became my painful duty early in the year to make a report upon your then Sanitary Inspector, which resulted in a new officer being appointed as from May 1st. During the interregnum, in spite of the unflagging work and zeal of your Lady Inspector, much work fell into arrear, and has not yet been completely overtaken.

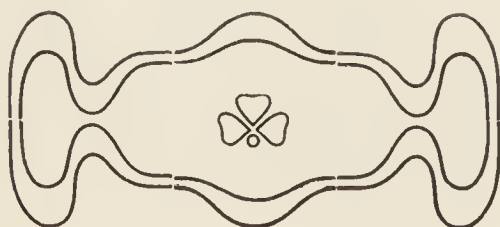
During the year, the sanction of the Local Government Board has been given to the adoption of the Notification of Births Act, and to the Public Health Acts Amendment Act 1907, both of which come into active operation on January 1st, 1910.

The mere summary of work performed by your Sanitary Inspectors, Mr. Fanner and Mrs. Lethbridge, does not adequately shew the excellent work they have performed, and I take this opportunity of expressing my great satisfaction with the manner in which they have carried out their onerous duties.

The kind co-operation of the members of the Medical profession has helped to lighten my duties in connection with the infectious disease work, which during the early part of the year was severe. My thanks are due to the Members of the Council and particularly the Members of the Sanitary Committee, for their uniform kindness throughout the year.

Your obedient Servant,

W. B. BARCLAY.



SUMMARY OF STATISTICS.

Area of the Borough in Statute Acres	...	...	...	1616 $\frac{5}{8}$
Population, Census 1901	...	...	...	19843
„ Estimated, middle of June	...	...	...	23000
Number of inhabited houses, Census 1901	...	...	...	3881
„ „ „ 1909	...	...	...	4487
Average number of persons per house, 1901	...	...	...	5.1
Density of Population, persons per acre	...	...	...	17
Uncorrected Death Rate	...	...	...	13.2

	Borough, 1909.	England and Wales, 1909.	76 Large Towns.	142 Smaller Towns.	England and Wales less the 218 Towns.
Birth Rate	20.4				
Death Rate	13				
Zymotic Death Rate	1.4				
Infantile Mortality	78.7				

THE BOROUGH.

The Borough is formed from the union of the two ancient and separate boroughs of Weymouth and Melcombe Regis separated by the Harbour and its prolongation—West and North, the Backwater.

Melcombe Regis lies to the East of the Backwater and North of the Harbour, it is the more level of the two, the maximum height above sea level being 108 feet. It is divided into two Wards, North and South. The Geological formation of the greater portion of Melcombe Regis is Oxford Clay, but that portion facing the Bay has an overlying strata of shingle and sand to a depth of 8 or 10 feet.

Weymouth lying to the West and South of the Harbour and Backwater, is the more hilly portion, the gradients being steeper, the maximum height being 175 feet. The Geological formation is Clay and Coral Rag.

The Area of the Borough was considerably enlarged in 1895 by including a portion of the Radipole Parish in Melcombe Regis and of Wyke Regis in Weymouth.

The Area as given me by the Borough Engineer is—

				ACRES.
Old Borough	{	Land	... ..	452 $\frac{1}{4}$
		Tidal Waters	... ..	311
				<hr/> 763 $\frac{1}{4}$
Extension ...	{	Radipole	... ..	437
		Wyke Regis	... ..	416 $\frac{3}{8}$
				<hr/> 853 $\frac{3}{8}$
Total				<hr/> 1616 $\frac{5}{8}$

POPULATION.

As in all years, except the Census year, this has to be estimated, and in consequence of the extension of the Borough in 1895, the usual method of estimation by calculating the rate of

increase as being the same in each decennial period, is not available.

It is somewhat difficult to arrive at a correct estimate, and I have taken all the various methods and struck an average, correcting this by means of the number of inhabited houses and the average number of persons to each house as at the Census in 1901.

The estimation has to be made for the normal resident population as at the end of June, and does not take into account visitors, of which the town is never entirely free, between the annual summer immigrants, and the visits of the fleet.

The average number of inhabited houses during the year has decreased since last year, though still slightly above that of 1907.

Increase is entirely confined to one Ward in the Borough, Melcombe Regis North. It is a steady and continued one, though not great. On the other hand Melcombe Regis South shews a fairly steady decrease, due in some part to this being to a great extent the business part of the Borough.

The separate figures for the two wards in Weymouth are not available, but that portion of the town though shewing a decrease on last year, may be considered fairly constant. The figures for 1909 and 1907 are alike, those for 1908 and 1906 are practically alike. I estimate the population for statistical purposes at about 23,000, Weymouth 11,750, Melcombe Regis 11,250. This is probably slightly over-estimated as regards the normal resident population, but is an under estimation for the actual population, upon which the statistics are based.

METEOROLOGY.

Full details of the Meteorology of the Borough will be found in the appended Report of the Honorary Meteorologist, Mr. I. J. Brown, F.R.Met.Soc., but the following summary of his report may be of interest :—

Highest Maximum Temperature	...	86·0°	Aug. 9th.
Lowest Minimum	„	...	23·0° Mar. 4th.
Mean Maximum	„	...	55·9°
Mean Minimum	„	...	44·5°
Mean of Maximum and Minimum	...	50·2°	
Difference from Average	...	...	—1·0°
Number of days on which rain fell	...	160	
Total fall in inches	...	...	27·68
Mean Relative Humidity	...	...	78%
Number of hours of bright sunshine	...	1938·5	
Days on which sun shone	...	286	

CLIMATE.

The Naples of England, as it aptly has been termed, possesses one of the most equable climates in the Country.

Its rare geographical position, situated at the extremity of a promontory, sheltered from the North by the Dorset Hills, with the Crescent Bay facing the East, and with the pure, fresh and invigorating breezes of the English Channel fanning it from the West, with its wealth of bright sunshine, its small rainfall, its soft yet mildly invigorating atmosphere free from any oppressive humidity, Weymouth equals, if it does not excel, any other health resort in the Country.

Although in easterly winds the Esplanade is somewhat exposed, yet one has only to travel to another portion of the Borough where the outlook is to the South and West and the English Channel, and this drawback vanishes.

Boating and Bathing are of the safest and best. Public Gardens are dotted here and there, whilst the many places of historical interest, and the diversified scenery of land and seascape—some of these unique—are easily accessible by numerous steamers and coaches.

The prevailing westerly winds and the sheltered position of the Town give to the Winter a mildness and salubrity which it is to be regretted are not more widely known.

OCCUPATION OF INHABITANTS.

To a considerable extent Weymouth may be considered, like other Health Resorts, a residential place.

Very few of the inhabitants are solely dependent upon the letting of houses in the summer, though a considerable number find this occupation a very desirable, and frequently essential, addition to their incomes. The working or artizan class are chiefly engaged as skilled mechanics at Whitehead's Torpedo Works, or in the various building trades, with a small number in engineering and shipbuilding. The Harbour with its shipping, boating and fishing also finds employment for a small number. It cannot be said that any particular occupation has an influence on the Public Health.

HOUSING ACCOMMODATION.

Rodwell district and Melcombe Regis North district may be considered to all intents, and with but few exceptions, residential, and the houses of modern type or recently modernized.

The centre of the town—Melcombe Regis South and that portion of Weymouth abutting on the harbour—are old. The streets are narrow, yard spaces diminutive, and the area generally congested. It is in these portions of the Borough that we have many of the older courts and alleys and some back-to-back houses, but as these portions have been receiving particular attention from the Sanitary Authority during the last seven years, they now to a large extent compare favourably as regards cleanliness of surroundings, paved yards and streets, and sanitary conditions, with other more open and modern streets. Only a proper housing plan, with demolition and removal of many streets, and rebuilding, can ever bring many of these portions into an approach to the garden city of the future.

The Westham portion of the Borough is of much more modern construction and contains many rows of houses erected for and occupied by the working classes.

The population density in 1909 for the whole Borough is 14·2 per acre. Excluding the area covered by water it is 17·6 per acre. I have been unable to get sufficient accurate information as to the area of the different wards actually built over, to give the density of the population of these separately, but the following table shows the number of inhabited houses in each ward at the Census of 1901, and as stated to me by the Rate Collectors for 1909, and the number of persons per house as at 1901 Census

Wards	Houses inhabited Census 1901	Houses inhabited 1909 (stated)	Population Census 1901	Population estimated 1909.	Persons per house Ce'us 1901
Melcombe Regis North	1045	1264	5187	6287	4·96
Melcombe Regis South	903	963	4625	4930	5·12
Weymouth Wyke Regis	1211 722	} 1933 { 2260	6387 3644	} 10,031 { 11,729	5·19

As no certificate is required before a new house can be occupied the exact number built and occupied each year cannot be accurately given. The number during 1909 is not great and less than in the previous year. The type of house built is not such as is suitable for the ordinary working man, and there is a serious lack of houses, of moderate rental, suitable for a man with a family and earning less than 30/- per week. It is necessary therefore for a large number of houses to be occupied by two families, or for the occupiers to lay themselves out to take lodgers, of which, during the presence of the Fleet there is no lack.

It is only during these latter times that any serious overcrowding takes place, and it is most difficult to deal with. Methods to deal with this have been tentatively tried and the subject is still under consideration.

Some cases of permanent overcrowding—as differentiated from the temporary caused by the evening or nightly letting to liberty men—are reported, but the few that bore investigation (many of the complaints being spiteful), were immediately abated on preliminary notice being served.

An important factor in connection with the density of the population, and having a great influence on the health of the community, and of inestimable advantage thereto, is the fact of the Borough being practically surrounded and intersected by the sea and tidal waters. The action of the Corporation also in, at every available opportunity, acquiring open spaces for Public Gardens and Parks, and thus adding to the lungs and breathing spaces of the town, cannot be too highly commended.

HOUSING OF THE WORKING CLASSES ACT.

Some parts of the Borough being old it has been necessary to take steps each year under this Act and in 1909 action was taken as regards ten houses, and the usual certificate, that the houses were unfit for habitation, was given. In all, the necessary work has either been carried out or is in the process of being carried out, with one exception.

It was necessary in one case, affecting three houses, to take legal proceedings, to close the houses, as the owner—through being wrongly advised—refused to carry out necessary repairs. Before the Case was heard, the repairs were started, and after a month's adjournment, the work being then satisfactorily carried out, the Case was withdrawn, on payment of part of the costs, the Magistrates making it known, that future cases would not be so leniently dealt with.

During the year the Corporation have acquired under this Act, two small insanitary areas, mentioned in previous reports, *viz.*, Horsford Street and West Plain ; the penultimate has at long last been reached ; the ante-penultimate being reached several years ago.

HOUSE SANITATION.

Steady and continued progress is being made in bringing this up to the highest and most modern standard, and the date cannot now be far distant when we shall be able to state that the sanitary state of each house is above reproach.

Constant attention to sanitary details in houses is most important for the general health of the people ; and that this is now more fully recognized by the public is evident from the great increase of applications by intending tenants, to have a sanitary certificate before entering a house.

A sanitary certificate is not given unless everything within and without a house has been tested, inspected and found sound. The standard now set is a high one, and is one that practically all the Architects in the town have accepted, so that no differences of opinion now exist as to what is considered sufficient.

All inspection of drains—as apart from public sewers—both of existing as well as of new houses is vested in the Health Department. Some little differences of opinion continue to exist with one or two builders, but the steady persistence of the Inspector, with the support of the Sanitary Committee, and the having unsatisfactory work re-opened, and in some cases entirely relaid, has, I think, brought them to recognize that it is the cheaper policy in the long run to join the majority and work in harmony with the Department.

WATER SUPPLY.

The Borough is supplied throughout by a private Company, which also supplies various villages in the adjacent Rural District. The water springs from the upper green sand, below the chalk at the foot of a hill beyond the village of Sutton Poyntz, $3\frac{1}{2}$ miles from the town.

A large number of springs issue from the side of the hill and run directly into a small reservoir or collecting pond, partly concrete and partly soil. It is not stored here but flows at once through a strainer to the pumping station.

The whole source is surrounded for about four acres by an unclimbable iron fence, and is uninhabited for a considerable distance round. The height of the collecting reservoir and

springs is about 80 feet above sea level. The water flows by gravitation to the pumping station 40 feet below, where partly by turbine engines and partly by steam it is pumped to the covered reservoirs at Preston 160 feet higher, and at Wyke 185 feet higher. From the Preston reservoir it flows by gravitation to a covered reservoir at Rodwell at 142 feet, and these—Rodwell and Wyke—supply the town of Weymouth, the latter serving the higher parts of the town. The supply is on the constant system, and the quantity is sufficient, the present consumption averaging $25\frac{1}{2}$ gallons per head per day. It is of excellent quality, though rather hard. The accompanying analysis has been given me by the Company as having been made by their Analyst :—

(COPY).

Western Counties Laboratory,
 Southey House, College Green,
 Bristol,
February 5th, 1909.

To the
 Board of Directors of the Weymouth Waterworks Company.

Gentlemen,

Herewith I beg to submit the results of analysis of a sample of the Weymouth Water received from your Engineer on the 30th ult. as follows :

CHEMICAL ANALYSIS.

				<i>Grains per gallon.</i>
Saline Ammonia	...	...	...	none
Albuminoid Ammonia	...	...	...	·0010
Nitrogen as Nitrate	...	...	...	·28
Nitrites	...	...	...	absent
Oxygen absorbed in 4 hours at 80° F.			...	none
Chlorine as Chloride	...	...	...	1·90
Total dissolved solids	...	...	...	21·0
Earthy Carbonates	...	...	...	12·5
Earthy Salts other than Carbonates	...	...	...	1·0
Hardness	...	...	...	14·5
Poisonous Metals	...	...	...	absent
Sediment	...	a little mineral and vegetable debris		

BACTERIOLOGICAL ANALYSIS.

Total Organisms on Gelatine plate ...	52 per C.C.
„ „ liquefying ...	5 C.C.
Bacillus Coli none in 50	C.C.
Streptococci none in 10	C.C.
B. Enteritidis Sporogenes ... none in 250	C.C.

These results are in every way most satisfactory.

I am, Gentlemen,

Your obedient Servant,

(Signed) F. WALLIS STODDART.



DAIRIES, COWSHEDS AND MILKSHOPS ORDER 1885-6.

The Regulations and Bye-laws formed under these, have, as in former years been a matter of constant attention, believing as we do that a milk supply pure and uncontaminated at its source, and in its distribution and storage, is one of the greatest means towards the reduction of disease.

The severe measures of former years have not been necessary, as the standard then set has been, with perhaps one or at most two exceptions, faithfully observed. There is an increasing inclination with the Cowkeepers to seek our assistance and advice, instead of as formerly, having it thrust upon them.

One prosecution of a cowkeeper was necessary, for using a cowshed which the Sanitary Authority had previously declared to be insanitary and in 1908 had prosecuted a member of the same firm or family, for occupying such. The Magistrates did not consider the evidence of usage sufficient, as, apart from the officials (who had not seen the cows milked in the shed, or drinking from the pond), the only witness—a boy who had on three previous occasions before various witnesses stated that he cleaned the shed out daily after the cows had been in and milked—told the Magistrates in Court, that he had been telling lies. Our own opinion remains as formerly, but the place is now disused.

The larger Dairymen—as apart from Cowkeepers—are all that can be desired, and render us every assistance.

As in former years, the trouble is always with the small purveyor of milk whose milk sales are only a small adjunct to other business. We find it difficult to impress them with the need for care and cleanliness, and a prosecution is necessary to bring some of them to a better knowledge. This has been delayed year by year, under the hope that promised legislation would give us powers that would close these places permanently.

There is still a general lack in the matter of *scalding* utensils, and with nearly all the cowkeepers, in the rapid cooling of the milk. Some two converts to this have been made during the past year.

One of the greatest drawbacks to our efforts is the fact that some two-thirds of the whole milk supply of the Borough is brought in by cowkeepers resident outside the Borough (many of them being their own purveyors) and over whom we can exercise no control, excepting during the period they are actually within the district.

The difference in the standard exacted within the Borough and without is a source of complaint.

Number of Dairies on Register	...	...	29
Number of Cowsheds on Register	...	...	9
Number of Purveyors { within the Borough		41	} 55
on Register ... { from without the Borough		14	
Notices issued to abate Nuisance, etc.	...	...	4
Number Registered in 1909	...	...	0
Number removed from Register in 1909		...	2
Number of Ice Cream vendors on Register in 1909			4

Ice Cream Makers are treated as Dairies and undergo the same inspection. During the busy summer months, the inspections are frequent. The Stalls and utensils used by the open air retailers, are kept under daily supervision. One maker is a perennial source of trouble as regards cleanliness, he is an alien.

SLAUGHTER HOUSES.

The are six Slaughter Houses on the Register and these are all carried on in a satisfactory manner. It has not been necessary to serve any notices, excepting for slight structural defects.

The same remarks apply to these as to Cowsheds. A large quantity of the meat consumed in the Borough being slaughtered immediately outside the boundaries, and it is stated that the standard required by the Inspector is not so high in the latter as in the former, and that working expenses are therefore slightly less. It is only the provision of a Municipal Abattoir, that can remedy these complaints and this still seems afar off. As is remarked elsewhere it is manifestly impossible to inspect all animals slaughtered, for tuberculosis, the visits of the Medical Officer are timed on purpose to inspect carcasses, but these are few.

There are eight places used in the preparation of food, such as Sausages, all are kept in a cleanly state and free from any emanations which might contaminate the food.



FOOD AND DRUGS ACT.

The administration of this Act is in the Police Department and is dealt with by them, under the Watch Committee.

The under noted return is through the courtesy of the Chief Constable.

Chief Constable's Office,

Weymouth Police,

January 12th, 1910.

Samples (under Food and Drugs Act) taken during year 1909:

<i>Name</i>	<i>No.</i>	<i>Genuine.</i>	<i>Adulterated.</i>
Milk	19	16	3
Butter	8	8	0
Demerara Sugar	2	2	0
Lard	3	3	0
Cheese	5	5	0
Tea	2	2	0
Margarine ...	1	1	0
Total ...	40	37	3

FRANK EACOCK,

Chief Constable,

Inspector under Food and Drugs Act.

Inspection of perishable foods is carried out as far as possible by the Health Department, but at best this is only casual.

Inspection of Animals slaughtered within the Borough is done at irregular intervals, but the numerous other duties of the Staff make it impossible for the whole of the slaughtering to be watched. Inspection of Food in Shops is also very irregular and imperfect.

The following table gives the seizures of unsound Food. No prosecutions were instituted.

June 2nd, quantity of unsound Fruit, seized in Franchise St.

August 2nd, 32 lbs. Cherries, seized on the Esplanade.

„ „ 28 lbs. „ „ „

„ „ 15 lbs. „ „ „

„ „ 4 pecks Shrimps, seized in St. Mary Street.

November 4th, 30 Crabs, seized on the Esplanade.

With the exception of the first lot a Magistrates Order for the destruction of the food was obtained in each case.

It will be noted that there are no seizures for tuberculosis in carcasses. Specific information is required by the Local Government Board on this subject, and also whether there is an Inspector qualified for meat inspection. The answer is in the negative.

OFFENSIVE TRADES.

There are twelve places on the Register as such, apart from fried fish shops. This is an increase of five from former years. They are on the whole fairly well conducted. No new places have been established, but a more careful inspection of the town has recently been made, and places not formerly known have been rooted out.

Under Sect. 112 of the Public Health Act, 1875, no offensive trade can be newly established without the sanction of the Local Authority. This Section seems to have been ignored in the past, as there is no record kept of any of the places just added ever having made application or received sanction.

As the Public Health Acts Amendment Act, 1907—which comes in force on January 1st, 1910—gives the Local Authority certain further powers with regard to these trades, it has been considered advisable to await the incoming year before taking further proceedings.

The Fried Fish Shops are well conducted, the premises are clean, the pans so constructed that all fumes or vapours are either consumed in the fire, or pass up the chimney. No nuisance has arisen from the retaining of offal or the keeping of fish tubs.

COMMON LODGING HOUSES.

There are three Registered Common Lodging Houses, all intended for males. Only one of these can be stated to be carried on satisfactorily.

It was found necessary to prosecute the keeper of one under Sect. 83 Public Health Act, 1875, for failing to transmit a schedule of the persons who resorted to the house. As this house has been persistently reported against as being improperly kept from a sanitary point, the opportunity was taken of publicly advising the keeper to give it up, and this towards the close of the year has been done.

Further powers are now given under the Public Health Act Amendment Act, 1907, which will render it much easier in the future to control such of those houses as have not been satisfactory in the past. In the future they will be subject to annual application for licences.

There is no doubt in my mind, that many more houses in the district are to all intents and purposes Common Lodging Houses, but the difficulties in the way of proof are great.

SEWERAGE AND DRAINAGE.

The sewage of the Town is discharged into the sea, at a point 1,380 feet east of the Nothe Point, the extreme point of land of the Borough, and 24 feet below the low water level of ordinary Spring tides. It is pumped thither, as much as possible during ebb tide, through an outfall sewer of about $1\frac{1}{2}$ miles length, from the large collecting tank at Westham. This tank is of the capacity of about 300,000 gallons, and is supplied by two intercepting sewers, one from Weymouth, one from Melcombe Regis, into which all the street sewers converge. During recent years, several relief surface water drains have been constructed, which convey storm water direct into the harbour, etc. These have considerably relieved the pumping station. In times of storm, however, in spite of these relief drains, the pumping station is unable to compete with the large volume of diluted sewage entering the tank, and it is necessary to divert that portion coming down the Eastern bank of the Backwater, into the Backwater, below the dam, by means of an old sewer, and to

pump from the tank direct into the Backwater, below the dam, at all states of the tide.

Apart from the general system there are two local sewers receiving the drainage of about 100 houses in the Belfield, Buxton, and Old Castle districts, which discharge their contents untreated into Portland Roads.

A scheme is in existence for dealing with these, and conveying their contents to the general system, but as it is dependent upon the construction of Docks and Railway by the Great Western Railway Company, which have received Parliamentary sanction, the Corporation have to await their pleasure for the completion of the scheme.

Regular flushing of sewers is carried out during the summer months by means of a specially fitted cart, but this is only a very inefficient method. The provision of large automatic flushing tanks at the head of each sewer would be of the utmost benefit to the public health generally. The sewers are ventilated by 66 upcast Ventilating Shafts and 13 Webb's Lights.

The Park district has been a perennial source of trouble, occupying as it does an area of about 20 acres closely built over, and forming a basin, the surface levels of many parts of which are below high water of ordinary Spring tides. In times of storm, portions of this district become flooded, the surface water entering the sewers, and becoming dammed back by the general congestion of the sewers at such times.

Some years ago the Council provided a special pumping plant for the purpose of relieving this district in such times of storm, the outlet pipe of which discharged into the backwater, at the foot of King Street until recently, when, owing to railway alterations it was carried out through the new embankment, and discharges on the N. side of this, near Melcombe Regis station.

This pumping plant, though of some benefit, has failed to entirely prevent flooding, in times of excessive rainfall, and during the year a scheme has been prepared by the Borough Engineer, with a view of cutting off entirely the storm or surface water, coming from the higher parts surrounding this

district, and conveying it direct into the sea or backwater, and by increasing the outlet from the present pumping station.

By the same scheme it is proposed to provide for the discharge of storm waters from the sewage tanks, into the backwater, by means of an overflow main.

It is to be regretted that the Sanitary Committee and the Health Department, were not given an opportunity of considering the details of this scheme before it was placed before the Local Government Board, for their sanction, as, while it may remove a nuisance from this special district, it will, in my opinion, tend to increase such in other directions, as will be drawn from my remarks under Pollution of Rivers and Streams. It may also be necessary, the storm water being removed to a considerable extent, to provide for the automatic flushing of the sewers in this district, the falls being slight.

EXCREMENT DISPOSAL.

This may be stated to be entirely the water carriage system, with one or two exceptions. One Laundry Factory has earth closets, the residue being buried in adjacent land. One or two houses on the extreme borders of the Borough, where sewers or levels are not available, having also earth closets.

So far as is known, all the house drains in the Borough with two exceptions, are connected with the sewers. This statement we repeat each year, and each year have to add, that some drains have been detected discharging direct into the Harbour and have been cut off.

The defect with the water carriage system, is the lack of flushing apparatus for so many of the w.c.'s. This is however being steadily and perseveringly remedied and as will be seen in the general report of sanitary work, some 98 houses have had flushing cisterns added. Wherever our attention is drawn to this matter, notice is served, and a supply is insisted upon. Recent Acts have strengthened the powers in this direction, though previously sufficient.

POLLUTION OF RIVERS AND STREAMS.

THE BACKWATER.

The River Wey entering the Backwater at its Northern end, is to some extent polluted by receiving some portions of the sewage of the villages of Radipole, Nottingham, Broadwey and Upwey. Within the Borough the Wey is tidal and may be considered as entirely included within the backwater.

A considerable portion of the Western bank of the lake is within the Rural District, and with the exception of a few farms, the land for some distance inland is uninhabited.

Within the confines of the town a Masonry Dam with lock gates extends across, and at ebb tide holds the water up, keeping the flats and shallows covered with water.

In connection with railway improvements, as mentioned in last year's report, an embankment 735 feet long on the Eastern side, and 285 feet on the Western side, connected by a steel bridge, consisting of five spans of 108 feet each, has been constructed across the lake, and entirely altered its topography.

Formerly during the ebb tide, a current existed extending across the entire breadth of the lake, this no longer exists on the Eastern side. The embankment has deflected it towards the middle of the lake, and there now exists a bay of quiet shallow water, extending from the railway embankment Northward. It is unfortunate that the storm overflows, for a considerable portion of Melcombe Regis, discharge into this bay.

One of the problems of the town, in common with many other seaside towns, for very many years has been the prevention of unpleasant smells, arising in hot weather from the presence of 'weed' in the backwater.

"Nuisance is often attributed to actual sewage matters deposited on shore, but there is no question that varieties of green seaweeds and especially *Ulva Latissima*, under certain conditions can of themselves give rise to a nuisance of similar character to that arising from foul sewage."

The 'weed' found in the backwater is principally 'Ulva Latissima,' and during the last few years this seaweed has been having a great deal of attention paid to it, throughout the country, and a vast amount of evidence concerning its life history, etc., has been accumulated, which I here summarize so far as it may concern our own town.

"It may be stated broadly that no localities have as yet come under observation where the Ulva occurs in abundance in which the water is *not* polluted with sewage." "On the other hand it is not always to be found in abundance in all places where the sea water is polluted." "It is probable that certain other conditions are necessary for its growth, which have not as yet been determined with certainty, but of which a sluggish flow of water as opposed to a strong tide and a suitable bed are possibly the most important."

It was noted in one district that ulva was found in quantities when a bay was polluted by sewage, but that when the sewage was intercepted and taken to another part, the growth of ulva was similarly transferred. There is also evidence of the spontaneous appearance and growth of ulva in sewage effluents and "that there is every reason to believe that the growth of these green seaweeds in quantity and especially that of the ulva, may be traced to pollution of the waters in which they are found, by sewage."

This evidence all tends to show that sewage pollution and growth of this seaweed 'ulva' go hand in hand.

As far as the backwater is concerned history tends also to bear this out.

Many years ago nuisance from this source was constantly recurring. Experts were called in and their opinions were acted upon, and at great expense an outfall system to convey sewage to the sea was carried out, and the backwater and harbour were cleared of sewage. Some connections however escaped, and these have been steadily dealt with, and as far as we are aware, only one or two single buildings now remains.

There has been recognized, I believe, a steady diminution almost to vanishing point in the recurrence of nuisance from this source, due undoubtedly to the steps taken to deal with it.

During my experience, of five seasons, I have steadily reported a decrease, and I had hoped this year to be able to report complete absence, a hope which has been frustrated, and which I attribute principally to the cause mentioned before, namely the alteration in the topography of the lake, combined with the presence of storm overflows.

These have stimulated the growth of the ulva, inasmuch as, (1) There is a bay of quiet shallow untroubled waters. (2) There is entering near the centre of this bay, the storm overflow for the Park district. (3) Where formerly loose masses of 'weed' were carried down by the current, they are now deposited in this bay. (4) There is no doubt that the growth of weed in this part is greater this year than in former years.

The course of events is as follows: The prevailing winds bring the 'weed' from the shallow banks to the Eastern bank and Northern part of the embankment, where it is deposited on the shallows in layers. "As the tide falls, these layers are left in a waterlogged condition and are again submerged by the incoming tide. They are thus kept constantly moist and in warm weather soon putrefy. The fronds first become flabby, then gradually darken in colour, while a peculiarly sickening smell is disengaged, which is perceptible over a wide area. Later the whole mass becomes a black pulp, from which Sulphuretted Hydrogen is freely evolved and later still a white or grey coating (presumably of sulphur) makes its appearance, the mass below degenerating into black mud, which is exceedingly foul, and has all the characteristics of sewage sludge." The latter part is again a quotation, but so accurately represents my own observations that I have quoted it in its entirety.

During the summer and autumn, complaints arose as to recurring noxious smells arising from that portion of the Backwater below the dam. These were due in our opinion to the fouling of the bed of this portion, from two sources. First from

the discharge of the residuaal ammoniacal liquor from the Gas Works in a heated state, on to the foreshore, with subsequent decomposition, and second, in a minor degree, from the decomposition of the more solid particles, deposited from the two storm overflows, one of the Radipole sewer, the other from the Pumping Station, which discharge immediately below the dam.

The former, on evidence being submitted to the Gas Company, was abated, and their residuum is now cooled down and discharged into the sewers.

I am strongly of opinion, and have expressed such to the Sanitary Committee, that the welfare of the town and the public health demands the total abolition of all sewage matter—however diluted by storm water—from the backwater.

This applies more urgently, if discrimination has to be made, to that portion above the dam, in consequence of the alterations previously alluded to.



BYE-LAWS.

Bye-laws dealing with New Buildings, Slaughter Houses, Dairies and Cowsheds, Common Lodging Houses, Nuisances, and Regulations as to Persons suffering from Dangerous Infectious Disease, are in force within the Borough, but are now to a certain extent obsolete, and require amendment or alteration to bring them into conformity with more recent legislation and methods.

With the adoption and enforcement of the Public Health Acts Amendment Act, those dealing with Common Lodging Houses must perforce be amended.

Bye-laws dealing with Van Dwellers are at present awaiting the sanction of the Local Government Board.

Bye-laws as to Houses let in Lodgings are urgently required, as are also those dealing with Offensive Trades, these latter are in course of preparation.

As regards Dairies and Cowsheds, promised legislation is being awaited before dealing with these.

COLLECTION AND DISPOSAL OF HOUSE REFUSE.

The collection of house refuse is done by the Corporation direct, and is under the Borough Surveyor's Department.

The scavenging is so arranged that every house shall be visited three times a week, and the two main business streets daily. The refuse so collected is conveyed in covered carts to Westham, where it is destroyed in one of Meldrum's Destructors. The steam generated by the destructor is used for working the engines which pump the sewage of the Borough to the outfall in the bay.

In accordance with the bye-laws every house is to be provided with a "suitable covered receptacle" for house refuse. In the past this bye-law has been more honoured in the breach than in the observance, few of the heterogeneous articles used as a receptacle being either suitable or covered, with a consequent unsightly and unsavoury display, and a littered street or path daily in evidence.

In the light of recent researches, it is now beyond doubt that this condition is a very strong factor in the dissemination of disease of an infectious nature, from encouraging the presence and breeding of the ordinary house fly.

Flies breed in almost any decaying animal or vegetable matter, and when the life history of the fly is known, with its enormous capability of multiplying its species; the need of reducing—more especially in the immediate neighbourhood of dwellings—its breeding and feeding places, has become one of urgent necessity.

Each fly it is estimated lays about 1000 eggs in a season. These are hatched in six to eight hours, into white maggots, which grow with enormous rapidity and under suitable con-

ditions reach full growth in four or five days, then the outer skin becomes hard and turns dark brown, within this is the true pupa, from which the adult fly issues five days later. Thus a single generation comes to maturity in ten days. It is thus easy to account for the enormous number of flies wherever there exists organic filth or food, on both of which they feed.

It is hardly necessary to point out the special predilection of flies to travel over meat, butter, bread, cake, sugar, jam or any food, as well as their special desire to commit suicide in the milk jug. As each fly has six legs on each of which are two pads each conveying 1,200 hairs—giving a total of 7,200—all of them secreting a sticky fluid, to which matters over which they have travelled adhere, their means of conveying infection from household refuse and depositing it on food, is most apparent.

The Local Government Board have recently issued a publication on this matter summarising the investigations carried out at their instance. “They have established beyond a doubt that flies transmit the contagion of typhoid fever, diarrhœa, cholera, diphtheria, plague, ophthalmia and several other diseases from infected matter to human beings and to their milk and food with much facility.”

Much may be done by the Sanitary Authority to bring about the destruction of the house fly, by the removal of organic matter and decaying refuse, and by insisting that proper receptacles, suitably covered, be provided for such, for the short period in which household refuse is retained near a house, but the co-operation of the householder is necessary.

During the past two years, the Health Department have advised that each Sanitary bin be dusted with disinfectant powder by the scavengers when emptied, and the householder—more especially in the summer—should see that this is done, as it tends somewhat to prevent flies approaching; but the greatest essential is cleanliness, the not allowing refuse to accumulate, nor to lie about uncovered.

GENERAL SANITARY WORK.

The amount of work done under this heading cannot be adequately shewn by the table appended, as generally speaking only visits paid to places are enumerated. The amount of time given by all the officers to interviews, telephone messages, etc., regarding work to be done, or being carried out, the correspondence regarding the same, and the ever readiness of the staff to render technical advice to builders and jobbers with regard to their work form no small item in each day's work. The general harmony that exist between the staff and those engaged in carrying out sanitary alterations and repairs, is mentioned elsewhere, and is a matter for congratulation.

The table given cannot be regarded as complete, due to the alteration, early in the year, in the Sanitary Inspector's department, but from April onwards may be regarded as a true return.

The work in connection with the Factory and Workshops Act is given separately.

Special attention and systematic inspection is still being given to the Chapelhay district as mentioned in last year's report, this being a congested district, and action is being taken in many cases under the Housing of the Working Classes Act.

Steady progress is being made in the fitting of w.c.'s with flushing cisterns, to replace the inefficient and dangerous methods of hand flushing.

DEFECTS FOUND.

Defective drains	...	...	...	138
Bell and mason traps defective	...	...	...	37
Yards in a defective condition	...	...	...	130
Drains unventilated and improperly ventilated	...	...	...	153
Defective scullery sinks	...	...	...	63
Defective fresh air inlets	...	...	...	25
W.C.'s without flushing apparatus	...	...	...	131
Offensive accumulations	...	...	...	14
Premises in a dirty condition	...	...	...	18

Houses without w.c. accommodation ...	...	1
Outbuildings erected without sanction	...	2
Overcrowding	... ..	4
W.C. pans broken	... ..	19
Drains choked	... ..	17

DEFECTS REMEDIED AND WORK CARRIED OUT.

New buildings drained	... ..	22
Houses redrained	... ..	79
Yards repaired, etc.	... ..	63
Fowls removed from premises	... ..	9
New w.c. pans fixed	... ..	61
Ventilating shafts fixed	... ..	92
Scullery sinks repaired	... ..	37
Scullery sinks trapped	... ..	33
Fresh air inlets fixed	... ..	71
Drains disconnected	... ..	85
W.C.'s cleansed	... ..	33
Flushing cisterns fixed	... ..	98
Number of tests of drains	... ..	266
Offensive accumulations removed	... ..	14
Bell traps and mason traps removed	... ..	24
Number of inspection visits	... ..	1428
„ formal notices served	... ..	210
„ formal notices carried out	... ..	152
„ statutory notices served	... ..	34
„ statutory notices carried out	... ..	14
„ statutory notices with work in progress	... ..	9
Number of notices served under the Housing of the Working Classes Act	... ..	7
Number of notices carried out	... ..	1
„ notices with work in progress	... ..	6
Number of notices served, Factory and Workshop Act	... ..	8
Number of notices carried out	... ..	3
„ notices with work in progress	... ..	5
„ complaints received	... ..	153

INFECTIOUS DISEASES.

All adoptive Acts in connection with the existence of infectious illness have been adopted by the Council. The clauses in the Public Health Acts Amendment Act, 1907 dealing with these, though adopted by the Sanitary Committee immediately the Act became law and sanctioned by the Council, have, due to delay in dealing with other Sections of the Act, not received the sanction of the Local Government Board until November this year and come in force on January 1st, 1910. Previously we have had to act under the Borough Improvement Act, 1887.

Voluntary notification of Pulmonary Tuberculosis has been in operation since 1905, but is of doubtful benefit as no cases are now notified.

The correlation of the School Medical Officer and Medical Officer of Health, together with the School Attendance Officer, being subordinate to and reporting daily to the Medical Officer, and the active assistance and daily reports of all Head Teachers, especially as to outbreaks of non-notifiable diseases, are of the utmost importance in dealing with infectious diseases

The one great difficulty found in dealing with all forms of infectious disease, is the laxity of the people generally as to the need of isolation and their lack of moral rectitude, as regards their duty to their neighbour, in disclosing all the inmates of the house, and carrying out the instructions given them concerning these.

NOTIFICATIONS.

During 1909 there were 125 cases of infectious illness notified, exclusive of tuberculosis. This represents a sickness rate as regards the diseases scheduled of 5·4 per 1000 of the population. The previous year the notifications were 157 and the rate 6·6.

The subjoined table shows the numbers and rates per 1000 for the past ten years.

		Numbers.	Rate.			Numbers.	Rate.
1899	...	—	1·1	1904	...	8	0·3
1900	...	—	5·9	1905	...	31	1·4
1901	...	—	14·0	1906	...	90	3·7
1902	...	179	8·8	1907	...	68	2·7
1903	...	28	1·3	1908	...	157	6·6

In reality there were 146 cases notified, some of these being at the time queried as doubtful, and the notifications being subsequently cancelled. The number of these being twelve. In nine other cases, observation proved the diagnosis to be a mistaken one. In only one case could it be said that there was not cause for the suspicion of the disease notified.

Of this official number of notifications, 106 were removed and treated in hospital.

SCARLET FEVER.

At the end of 1908 a Scarlet Fever outbreak was still in existence, limited principally to the Weymouth side, and attributed to a certain school. This continued to a slight extent during the early days of January, though the school closure practically stopped the outbreak.

At the end of the second week it again broke out, in Government quarters, and with great virulency, the infection being a compound one, as in nearly all the cases the Diphtheria Bacillus was found in the throat. The infection seems to have arisen through a children's party as all the cases had a connection with this, and certainly was introduced from outside. In one family, in Married Quarters of the Garrison, the whole of the children, five in number, were attacked and all died within a few days.

Early in February the disease appeared in Melcombe Regis principally, and the first efforts to trace the source of infection were fruitless. The occurrence of a case in the Royal Hospital which could only have been infected from inside, brought what began to be a suspicion, to a certainty, and through the courtesy

of the Physicians and Staff, enquiry was made into every case, and it was considered advisable to close the out-patient department. This had an effect, and the occurrence of a case in a family limited to one living in one of the Avenues, where every movement could be accounted for, caused enquiries to be made at the family of the domestic servant, when the whole source of this outbreak became apparent, Scarlet Fever having been in that family (one child after another), for some time back. The mother attended them, and at the same time was a constant visitor to the Royal Hospital. They resided outside the Borough. No Doctor had been called in.

At the end of March and in April a fresh outbreak occurred, limited to two private schools. In one of these at least the evidence directly pointed to a boy, living at a distance, returning to school from an infected house. The disease there having first having been notified as Scarlet then withdrawn and labelled German Measles.

Isolated cases, many of them direct introductions from other towns, kept occurring during each month of the year, but nothing in the shape of an outbreak until June, when several cases occurred simultaneously in one street. A few days afterwards a notification was received from the M.O.H. of a London district stating a child in an infectious state, supposed to have had Measles, but really Scarlet Fever, was staying in this street. By this time several cases had occurred from contact with this child, but was quickly checked on the removal of every known case to the Isolation Hospital.

The latter months of the year have been comparatively clear, the few odd cases occurring, being limited in each case to an odd house, and easily traceable to infection from an outside source.

The number of cases notified during the year has been 98 affecting 68 houses, of these fourteen affecting eight houses proved not to be Scarlet Fever, leaving a total of 84 cases. Fourteen deaths occurred during the year. Of the total number notified 92 were moved to Hospital for treatment or observation.

DIPHTHERIA.

Until the Autumn only isolated cases were notified, and as in many of these the specific Bacillus was not found after repeated bacteriological examination, they may be eliminated.

In November a sudden, severe and fatal outbreak occurred. The distribution of the disease seemed in the first days to point to two infant schools, and these were promptly closed as far as the seemingly affected classes were concerned, but a milk supply was indicated at the same time. The Dairy affected, having its milk from three separate sources, a day was lost in making enquiries, but under a week from the first case appearing, the affected cowshed was found, the authority notified—they had previously acted—and the danger was over. The number of cases arising directly from this source was twelve with four deaths.

The circumstances surrounding this outbreak are worthy of notice, as showing the need there is for the most careful supervision of Dairies and Dairy workers, and the necessity of Dairy Farmers, having stringent rules as to their employees notifying them of all cases of illness in their families.

The child of a cowman—engaged in milking—had been ill for some days with a bad throat, the father, I understand, assisted in nursing the child, and occupied the same room ; his employer was unaware of any illness, and some days elapsed ere medical advice was sought. When the case was diagnosed, delay took place ere the child was moved to hospital, and still the employer was not informed, though, I understand, the M.O.H. sent a verbal message by the father. It was only when it came to the Dairy Farmer's knowledge that the child had been removed to hospital that he was able to take precautions, which at my visit a few days after, were found sufficient and satisfactory. The whole of this farmer's milk is brought into the Borough, yet we have no means of control, except by moral suasion, until an epidemic has broken out. The Public Health Acts Amendment Act, which comes into force on January 1st, 1910, should, if strictly enforced, be of some assistance in cases

like this; but the co-operation of the authorities concerned is necessary for its effective working.

Thirty-seven cases in all were notified, but as some of these were tentative notifications, pending bacteriological confirmation, and were withdrawn subsequently or proved not to be that disease, the official number is 31.

During the year twelve deaths were attributed to Diphtheria, or its sequelæ.

ESYSIPELAS.

Two cases were notified. Insanitary conditions were found in each case, and the usual steps were taken to have these remedied.

SMALL POX, VARIOLA.

No cases or suspicious cases were brought under notice. The presence of the disease in a neighbouring town caused extra precautions to be observed for a time, especially with regard to itinerants.

So far as the Elementary Schools are concerned, an outbreak of Small Pox would probably have serious financial effects, as we find that some 31% of the children are unvaccinated.

The numbers of unvaccinated children vary considerably at the different age periods, and with the view of tracing whether the alteration in the law of vaccination had any effect on the numbers, I have worked out the percentages as regards close upon 2,000 children.

Age last birthday.	Percentage unvaccinated.	Age last birthday.	Percentage unvaccinated.
4	34·8	9	27·
5	23·8	10	37·
6	15·7	11	48·8
7	29·7	12	33·5
8	21·9	13	37·4

Certificates of exemption were first allowed by the Act of 1898 and it will be noted, that the age period equalling that year shews the highest percentage, then a steady diminution for some years.

ENTERIC FEVER.

A long record of practical immunity from this disease ceased this year, by the notification of six cases of Enteric and one of Continued Fever. But in reality the Borough is still immune from the disease, as with one possible exception, all the cases came into the town as visitors, and had contracted the complaint previously.

Case No. 1 in a Common Lodging House, not attended by a Doctor, nor notified until late in the disease. There was a history of eating cockles, but the source of the supply, owing to the late period of investigation, could not with any accuracy be determined.

Case No. 2 not notified until after death, in a hospital, the diagnosis not being ascertained with any certainty. The woman was of the domestic servant class, and as far as could be traced, had not been in the town long and had led rather an erratic life, never being long in one place.

Case No. 3 was notified as Continued Fever.

Case No. 4, a visitor, took ill after her arrival, just within the possible period of incubation. Ice Cream consumption in a neighbouring town was blamed, but could not be authenticated. The knowledge that the disease had been in the patients home district, prior to, at the same date and later, tended in my opinion towards infection before leaving home.

Case No. 5 was removed from the Workhouse, having been admitted to that Institution suffering from an illness, later diagnosed as Enteric. He had been discharged the previous day from another Public Institution, at a distance, after a month's residence. The source of the disease was thus accurately determined, as another case of Enteric had occurred in the latter Institution, and there were means of infection.

Case No. 6 was also a visitor and was fatal. The source was ascertained, and was due to eating oysters, at an Irish port.

Case No. 7 was the Nurse of Case No. 6 and contracted the disease, before Enteric was diagnosed, and the necessary precautions taken.

Three deaths were registered as due to Enteric Fever.

At the close of the year a death is registered as primarily due to Para-typhoid. Enquiries are proceeding in the town where the case came from.

MEASLES.

With the exception of a short outbreak confined nearly entirely to the Park District, this disease was absent from the Town. This outbreak was introduced by a visitor, and soon spread. Some 60 cases were visited, and instructions given by the Health Visitor, and the outbreak soon ceased.

One death was primarily attributed to measles.

WHOOPING COUGH.

Very few cases have come to our knowledge through the schools, and even these were not authenticated, so that we may say that to all intents and purposes, this disease has been absent.

One death of an infant was primarily attributed to whooping cough.

CHICKEN POX (VARICELLA).

Towards the latter end of the year, this complaint appeared simultaneously at Holy Trinity and St. Mary's Infant Schools, but not to such an extent as to warrant any closure of classes or Schools.

Every possible precaution is taken at the schools to prevent the spread of this, and other similar children's infectious diseases, and written instructions as to isolation of affected children, etc., are sent to every case, but the carelessness of

many parents in allowing children with the disease upon them to play in the streets and mix with others, renders all our precautions vain.

MUMPS.

A slight outbreak occurred in April, in the Westham District, but never assumed epidemic form. The same methods are adopted with this disease as with Chicken Pox, etc.

EPIDEMIC DIARRHŒA (GASTRO ENTERITIS).

Our comparative immunity from outbreaks of this very fatal complaint continue, though the number of infantile deaths due to it are slightly greater than last year. One of the greatest factors in the spread of this disease is the house fly, and in another place I have written concerning this. The continued spread of hygienic knowledge tends to reduce the number of cases, and the steady improvement in the sanitary state of the town, with the great improvement in the milk supply, gives even more hopes for the future. The death rate at all ages is 0·3 per 1000.

The rates for previous years are as undernoted :—

1902	...	0·39	1906	...	0·6
1903	...	0·29	1907	...	0·3
1904	...	0·43	1908	...	0·25
1905	...	0·8	1909	...	0·3

CANCER.

13 deaths were registered as from Malignant Disease. This is equal to a rate of 0·58 per 1000 inhabitants.

The corresponding rates for former years are as under :—

1900	...	0·50	1905	...	0·71
1901	...	1·05	1906	...	0·9
1902	...	0·59	1907	...	0·64
1903	...	0·63	1908	...	0·93
1904	...	0·97	1909	...	0·58

The average for the 10 years is 0·75 per 1000.

TUBERCULOSIS.

Voluntary notification of Pulmonary Tuberculosis was instituted in 1905, with a view of treating Incipient Cases at the Isolation Hospital, and instructing the sufferer in the best means available for home treatment. As in last year no cases were notified voluntarily, but under the Public Health (Tuberculosis) Regulations 1908, 4 cases were notified, all four were in an advanced state of disease, and three died shortly after notification.

Where cases of Pulmonary Tuberculosis are known, a card giving short and concise instructions as to the precautions to be taken against infection of others, etc., is issued, and occasional visits paid by some one of the staff.

Deaths from Phthisis are immediately notified by the Registrar, and the relatives are encouraged to have the rooms and bedding disinfected. This is carried out in practically all cases.

The death rate from Pulmonary Tuberculosis is 1 per 1000, slightly under the average for former years, but little impression seems to have been made in the way of lessening the number of cases.



ISOLATION HOSPITAL.

The Borough Isolation Hospital is outside the Borough boundary, near Chickerell, in the Weymouth Rural District. It is situated in an enclosed piece of ground $5\frac{1}{2}$ acres in extent. It is built of galvanised iron, wood lined, and heated by slow combustion stoves.

It consists of a central administration block and two detached ward blocks, connected by a covered passage-way with the central block, a laundry block and other outbuildings. Accommodation is provided for twenty patients in each block, and two rooms have been converted in the administration block into a ward for two beds, which may be used either for enteric cases or for observation purposes in doubtful cases.

During 1909 122 cases have been admitted into the hospital, and these may be classified as under :—

Diphtheria	...	...	...	28
Scarlet Fever	...	...	...	81
Enteric Fever	...	...	...	2
Observation	...	...	..	11

The permanent Staff consists of Matron and two Nurses, and the usual domestic staff. Additional Nursing Staff is obtained when necessary from the Trained Nurses Institute. This has only been necessary during the early part of the year.

The former Small Pox Hospital, which adjoins this, and has a separate administration department, is now available for general isolation purposes, or for tuberculosis, should occasion arise, giving a total number of 50 beds and allowing four distinct infectious diseases to be nursed at the same time.

No special provision of a building has been made for the treatment of Small Pox, but arrangements have been made whereby a suitable site and temporary accommodation can immediately be obtained.

DISINFECTION.

Disinfection of rooms is carried out by means of a Mackenzie Pneumatic Sprayer, and generally a solution of Formaldehyde, but other disinfectants are used in special circumstances, such as Perchloride of Mercury solution, Sulphur Dioxide Gas and the Cresols.

Disinfection of articles of bedding, clothing, etc., is carried out at the Corporation Yard by means of a Washington-Lyons Disinfector and super-heated steam and hot air. It has the merit of being as efficient a means as is known, and in our hands has also the merit that damage to articles by wetting has not been complained of.

Undernoted is a schedule of the articles, etc., disinfected during the year.

Articles.			Disinfected	Destroyed.	Total.
Blankets ...	...	...	518	2	520
Towels ...	...	...	173	—	173
Curtains ...	...	...	161	—	161
Sheets ...	...	...	340	—	340
Pillows ...	...	...	350	—	350
Quilts ...	...	...	171	—	171
Mattresses	...	...	133	6	139
Beds ...	...	...	235	2	237
Carpets ...	...	...	125	—	125
Cushions...	...	...	48	—	48
Rugs ...	...	...	148	—	148
Bolsters ...	...	...	121	—	121
Vallances...	...	...	44	—	44
Clothes ...	...	...	4308	—	4308
Sundry Articles...	...	...	6454	5	6459
Total			13,329	15	13,344
Rooms ...	...	...	390	—	390
Total			13,719	15	13,734

BIRTHS.

During 1909, 469 Births were registered, the lowest number with the exceptions of 1897 and 1898, ever recorded. In consequence, if the population is rightly estimated, the rate is the lowest since the enlargement of the Borough.

The 2 Divisions of the District taken separately shew a remarkable difference in the rate.

		Males.	Females.	Total	Rate per 1000.
Weymouth	...	152	140	292	24·8
Melcombe Regis	...	83	94	177	15·9
		235	234	469	20·4

Of the Births 20 are illegitimate, equal to 4·2 per cent. of the whole, a very slight increase upon last year, and considerably in excess of the average for the past 5 years.

The declining birth rate is one which is general throughout the Country, and too much stress must not be laid upon an exceptional year like this. As the average for the 10 years is only some 2 per 1000 under the average for the whole Country, and this may be considered good for a town which to a great extent is residential; compared for instance with other seaside towns on the South Coast, our birth rate is a comparatively high one.



DEATHS.

The total number of deaths registered as occurring within the district is 304, a number nearly approaching last year, and slightly less than the 10 years average. This does not represent the real death rate of residents in the Borough, as of this number some 24 were deaths of people brought into Hospitals or Institutions from outside districts. At the same time we have also a certain number of residents who die in Institutions in other districts. Making the necessary correction we have a nett number of 301 deaths, equal to a rate of 13 per 1000 on the estimated population. This is slightly under the six years average.

This figure still includes a considerable number of deaths of persons who are only visitors in the borough, many having come in search of health and only with a faint hope of prolonging life. It is not permissible to exclude any such deaths, though we are not allowed to add these on to the population as residents. Thus in a health resort of this type the death rate cannot be taken as a true index of the condition of the town. Excluding, as far as is known, the deaths of Visitors the rate would be 12·2.

Over 33% of the deaths are those of persons upwards of 65 years of age, and over 45% occur at the extremes of life, with 12% of infants under one year.

There is still a high percentage of deaths occurring from Pulmonary Phthisis, Bronchitis, Pneumonia, and Heart Disease. As in other years much the greater number of deaths from Phthisis occur at the age period 25—65. The deaths from Bronchitis are in very young infants (a small number), and in the aged. Deaths from Pneumonia occur at all age periods. Heart Diseases are in the age periods 25 to 65 and 65 upwards, but in nearly every case the ages were advanced.

Accidental deaths are much under the average ; suicides are in excess.

The number of deaths in which inquests were held was 14.

No deaths were uncertified.

INFANTILE MORTALITY.

This important index of health and sanitation continues to receive special attention, and the advent of a Health Visitor in the Town has materially conduced to the most gratifying result we are able to record.

Though the Notification of Births Act did not receive sanction until November of this year and did not come into active operation at all, yet under the difficulties of not learning births for some six weeks after, active operations in the instruction of mothers in the rearing of young children proceeded throughout the year.

The actual number of deaths was 37 and this is equal to a rate of 78·8 per 1000 births. Both figures constitute a record.

The average rate since the enlargement of the Borough, has been 108·5. In one year 1899, it reached 158.

46% of the deaths occur within the first month of life, 27% during the first week, and 16% within 24 hours. These latter

are all due to ante-natal causes as are also those with one possible exception occurring during the first week.

Only 4 deaths have occurred from diarrhoeal diseases. In 3 of these where enquiry was made the children were bottle fed.

38% of the infantile deaths are due to wasting diseases, and with an earlier knowledge of the birth, it is possible that some of these might be saved.

Tuberculous diseases are entirely absent as a cause of death, as are also cases of overlying.

Of the total number of deaths 8% were those of illegitimate children.

The death rate per 1000 births for legitimate children is 75 ; for illegitimate children it is 150.

DEATHS FROM ZYMOTIC DISEASES.

The Zymotic death rate of the Registrar General refers to the rate caused by deaths from the seven principal Zymotics, as follows : Small Pox, Measles, Whooping Cough, Scarlet Fever, Diphtheria, Fever (Typhoid, Typhus, Continued), and Diarrhoea.

The rate this year is a high one, 1·3 per 1000, in consequence of the deaths in the early part of the year from Scarlet Fever, and later from Diphtheria and Enteric.

The Zymotic rate is to some extent the barometer of the healthiness of a district as regards preventible diseases, yet in this year, as will be seen under the different heads of the diseases, in nearly all the deaths occurring, the disease was introduced directly from outside, and had fatal results, sometimes ere notification.

MIDWIVES ACT.

The visiting and inspection of the registered Midwives is carried out by the Lady Inspector, herself a qualified midwife.

Her Report so completely covers everything, that I append it in its entirety.

There are twelve Midwives who gave notice of their intention to practice within the district.

Of this number ten are registered under "prior practice," and two under certificates of an examining body.

The Midwives Act of 1902, and the Central Midwives Board, have laid down definite rules which have to be observed by all Midwives in practice.

The majority of the Midwives registered under "prior practice" are uneducated, and have received little or no training, the work of educating Midwives to observe the rules still involves a large amount of work, but undoubtedly there has been steady progress in the right direction.

One Midwife was reported to the Central Midwives Board for persistent neglect to comply with the rules of the Board, and her name removed from the Midwives Roll.

One new one has been added to the list.

Regular and systematic inspections were made of the houses and outfits of Midwives.

When visited at their homes the Midwives were found in most cases to be personally clean and their houses well kept and in good condition.

On inspection, bags completely fitted, clean and in good condition, and containing removable, washable lining as required by the Central Midwives Board, numbered eight, five new ones having been procured with all the necessary appliances.

Bags incompletely fitted and in an indifferent state of cleanliness, numbered three, and notice has been given to each Midwife, from the Medical Officer of Health, to remedy same.

The Registers of Cases are fairly well kept, the chief fault being as formerly, the cases are not entered in up-to-date.

In three instances note books served as a Register of Cases, and in one case no Register of any description was kept.

In accordance with Rule 21 the Act requires the Midwife to send notice to the Local Supervising Authority when she has to send for medical aid. 17 notifications were received by the Medical Officer of Health that medical assistance had to be procured. One case was not duly notified where the Doctor had been sent for.

Notifications of still births numbered 10. One still birth was not notified.

One midwife reported attending a case alone where medical assistance should have been procured. She was warned not to do so in future. In May notices were sent to each of the midwives from the Medical Officer of Health advising them to carefully read and observe the Rules of the Central Midwives Board.

One case of Puerperal Fever resulting in death occurred during the year, in connection with which the necessary precautions were taken for the prevention of further infection.

There is evidence that there are some women practising as midwives who are not qualified to do so, either by registration or certificate.

I am able to report a steady all-round improvement on the previous year, and a desire on the part of the midwives themselves to conform to the Rules and to do their best to carry out their duties efficiently, also the importance of observing strict cleanliness in all matters pertaining to midwifery.

The following is a list of the Midwives practising within the Borough.

Name.	Address	Number of Certificate.	Date of Certificate.
Burt, Emma	... 17 Rock Terrace	12839 ...	Jan. 26, 1905
Fuszard, Eliza Maria	5 Charles Street	13237 ...	Feb. 23, 1905
Fuszard, Merina	... 17 Wesley Street	20645 ...	Apr. 27, 1905
Gordon, Sarah	... 23 Walpole Street	12921 ...	Jan. 26, 1905
Honebon, Susan	... 14 Rock Terrace	12843 ...	Jan. 26, 1905
*Kingsman, Louisa	... Hope Square	... 13652 ...	Feb. 23, 1905

* Retired from practice during the year.

Name.	Address.	Number of Candidate	Date of {Certificate.
†Lee, Hannah	... 10 Nicholas Street	20561 ...	Apr. 27, 1905
Mead, Elizabeth M.	Westham Cottage	19369 ...	Apr. 27, 1905
‡Norwood, Annie	... 12 Nothe Parade	20458 ...	Apr. 27, 1905
Swyer, Eliza,	... 50 Ranelagh Road	12994 ...	Jan. 26, 1905
§Samson, Margaretta	16 St. Leonard's rd.	25389 ...	Oct. 10, 1907
Thomas, Louisa	... 164 St. Paul's Ter.	12846 ...	Jan. 26, 1905

† Resigned and name removed from Register.

‡ Holds the Certificate of the London Obstetric Society.

§ Passed the examination of the Central Midwives Board.

A. LETHBRIDGE, C.M.B.

FACTORY AND WORKSHOPS ACTS.

As usual and in accordance with the above Act, I submit the work done under these Acts in the form provided by the Home Office, whereby it will be seen that each Factory, Workshop and Domestic Workshop, is visited at least once in each year, many much more frequently, and continued progress is being made in the way of improving the conditions under which the employees work. Some of the larger Workshops, have been entirely remodelled or rebuilt with consequent improvement in ventilation and air space. The sanitary accommodation for all Workshops is steadily being brought into conformity with the Public Health Act Amendment Act 1890

MILLINERS AND DRESSMAKERS.

The conditions of the larger Workshops employing many hands, have greatly improved. It is difficult with some of those who employ a few hands and merely use a large room or so of a domestic building, to ensure that the standard of ventilation is always secured. Dependence has to be placed in nearly all of these upon open windows, and in cold and rough weather these are closed, with a consequent vitiation of the air, other means of

ventilation are strongly objected to, because of the expense incurred, and the objections of the owners of the property.

With few exceptions the workrooms were found to be kept in a cleanly condition, and maintain a satisfactory state of efficiency.

Two notices were served for want of cleanliness, and this condition has been remedied.

Overcrowding was found to exist in three instances, and notices were served to abate the nuisance.

The sanitary conditions of a number of the workshops require remedying.

One workshop was notified to H.M. Inspector of Factories for failure to affix Abstract of the Factory and Workshops Act.

The number on the register is 50.

LAUNDRIES.

Under the 1907 Act which states that ("Laundries carried on by way of trade or for the purpose of gain or carried on as ancillary to another business or incidentally to the purposes of any public institution," becomes a Workshop under the Factory and Workshop Act), the number of registered Laundries has been very much increased.

Considerable confusion seems to exist as to the meaning of the Act. Formal notices have been issued calling attention to the Act and requiring those now coming under it to register their places.

On inspection of so called Domestic Laundries, females were found to be at work in some cases whole and others part time.

Great difficulty is thus experienced as the Laundry is carried on for gain and the Act evaded.

For failure to affix Abstract of the Factory and Workshop Act, twelve Laundries were notified to H.M. Inspector of Factories.

Want of drainage. Two notices were served, and one duly carried out, the other is under consideration.

The Laundries without exception are satisfactory as regards cleanliness and are kept in good condition. Considerable leniency has been exercised with those who have just come under the Act in requiring to gradually remedy the condition of want of drainage and the heating of irons in a separate room as required by the Act.

BAKEHOUSES.

Five of these are Factories and 29 Workshops, one of the latter being an underground bakehouse. The improvement mentioned in former years still continues, and a very high state of sanitary efficiency is general.

Ventilation has been further improved in a considerable number, and the standard of cleanliness has reached a higher point by the troughs being placed on castors and thus capable of being moved daily for the purpose of cleaning under and behind.

Difficulty exists with regard to bakehouses that have been closed under our advice, as being insanitary and not reasonably capable of being brought to the modern standard.

It is found, time after time, that these are again occupied, after a period of closure, by some other person, and the same work has to be again gone through. There is a disinclination to take legal steps to permanently close these, but this will require to be done.

HOME WORKERS.

The Home-work order of May 23rd, 1907, requires that when work of certain kinds is given out to a workman or contractor to be done outside the factory or workshop, a list of all such persons to whom work is sent out shall be kept, and that a copy

of the list shall be sent to the Local Authority not later than February 1st and August 1st in each year.

A considerable amount of trouble has been experienced in previous years in obtaining the list of out-workers. To obviate this, the plan has been adopted of forwarding a list to each likely employer of such, immediately before the dates of delivery, with the request that it should be filled in and returned. In three cases further written application was made before the lists were received.

Notices were received of the employment of 72 home-workers during the year, and 52 lists have been received from 27 employers.

On inspection the home-workers' premises were found to be fairly satisfactory, in some instances sanitary defects were found to exist and notices served to remedy same.

The rooms occupied were satisfactory, in most cases a separate room being used, and in other instances one of the living rooms, there was no overcrowding and on the whole the conditions under which the work was done were good.

Three Notices were served on home-workers to whitewash, cleanse and purify their premises.

A case of infectious disease was reported on an outworker's premises, and measures were immediately taken to prevent the spread of infection.



STAFF OF THE HEALTH DEPARTMENT.

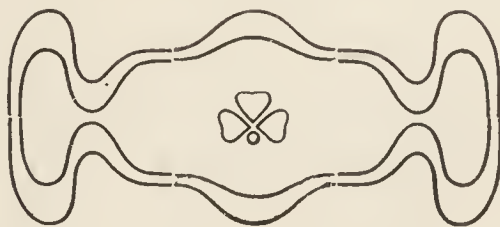
No health resort of similar population is worked at a less cost as regards Inspectors than is Weymouth, and it speaks well for the staff that the reputation of the town is kept up as regards general sanitary work.

The Staff, apart from the Medical Officer of Health, consists of one Sanitary Inspector, one Female ditto, both qualified, and one assistant who carries out disinfection, drain testing, etc.

The female Inspector is only part time, as she also acts as School Nurse.

During the year the Council, on the Report of the Medical Officer of Health, felt it incumbent upon them not to re-elect their former Inspector of Nuisances, and on May 1st the present Inspector started his duties.

Both Inspectors have carried out their duties in a thoroughly conscientious, efficient and tactful manner, and to my satisfaction.



**TABLE II.—Vital Statistics of Separate Localities in 1909
and previous Years.**

Name of District—Borough of Weymouth and Melcombe Regis.

Names of Localities.		1.—Weymouth.				2.—Melcombe Regis.			
Year		Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.
		<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>	<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>
1899	...	...	...	...	...	...	...	...	...
1900	...	...	...	...	...	...	...	...	...
1901	...	...	...	...	...	...	...	...	...
1902	...	10,177	...	140	...	9,956	...	123	.
1903	...	10,372	311	167	44	9,964	196	125	23
1904	..	10,486	319	145	26	10,074	177	138	27
1905	...	10,626	358	178	48	10,162	190	138	7
1906	...	11,800	328	150	31	11 500	183	129	22
1907	...	11,800	310	168	33	11,500	198	131	20
1908	...	11,795	330	157	27	11,805	207	146	23
Averages of years 1899 to 1908		11,008	326	157	34	10,708	191	132	20
1909	...	11,750	292	169	23	11,250	177	132	14

TABLE III.—Cases of Infectious Disease notified during the Year 1909.

Name of District—Borough of Weymouth and Melcombe Regis.

Notifiable Disease.	Cases notified in Whole District.							Total Cases notified in each Locality.		Number of Cases removed to Hospital from each Locality.		Total cases removed to Hospit'l
	At all Ages.	At Ages—Years						1	2	1	2	
		Un-der 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 & up-ward.	Wey-mouth.	Mel-combe Regis.	Wey-mouth.	Mel-combe Regis.	
Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria includ'g Membranous croup	31	1	6	22	1	1	...	24	7	18	6	24
Erysipelas ...	2	...	...	...	1	1	...	1	1	...	...	...
Scarlet Fever ...	84	1	20	55	7	1	...	40	44	39	39	78
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	6	...	...	...	3	3	...	2	4	1	2	3
Relapsing Fever...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	1	...	...	...	1	...	...	1	...	...	...	...
Puerperal Fever...	1	...	...	...	1	...	...	1	...	1	...	1
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis ...	...	...	...	...	...	...	...	...	...	...	...	...
Totals ...	125	2	26	77	14	6	...	69	56	59	47	106

Isolation Hospital, Name and Situation—Borough Isolation Hospital, Chickerell, Near Weymouth

Total available beds—52.

Number of Diseases that can be concurrently treated—4.

TABLE IV.—Causes of, and Ages at, Death during Year 1909.

Causes of Death.	Deaths at the subjoined Ages of "Residents" whether occurring in or beyond the District.							Deaths at all Ages of 'Residents' belonging to Localities, whether occurring in or beyond the District.		Total Deaths whether of 'Residents' or 'Non-residents' in Public Institutions in the District.
	All Ages.	Under 1 Year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Weymouth	Melcombe Regis.	
Small-pox ...	..	...	...	...	...	...	...	...	..	...
Measles ...	1	...	1	...	...	...	...	...	1	...
Scarlet Fever ...	14	1	4	8	1	...	...	11	3	..
Whooping-cough...	1	1	...	...	...	...	...	1	...	...
Diphtheria including Membranous croup	12	...	3	8	1	...	...	7	5	...
Croup ...	...	...	...	...	...	...	...	...	...	...
Fever { Typhus ...	...	...	...	...	...	...	...	...	...	...
Enteric ...	2	...	...	...	...	2	...	...	2	1
Other continued	...	...	...	...	...	...	...	...	...	...
Epidemic influenza	...	...	...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...
Diarrhoea ..	2	2	...	...	...	...	...	...	2	...
Enteritis ...	5	2	...	2	...	1	...	4	1	...
Puerperal fever ...	...	...	...	...	...	...	...	...	...	...
Erysipelas...	...	...	...	...	...	...	...	...	...	...
Other septic diseases	...	...	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis)	23	...	...	1	4	17	1	13	10	4
Other tubercular diseases	0	...	4	1	...	1	...	4	2	3
Cancer, malignant disease	13	...	...	...	...	10	3	6	7	5
Bronchitis...	20	3	...	...	...	3	14	15	5	2
Pneumonia	21	2	6	1	2	6	4	9	12	2
Pleurisy ...	1	...	...	...	...	1	...	1	...	...
Other diseases of Respiratory Organs...	8	...	1	2	...	3	2	3	5	...
Alcoholism	4	...	...	...	...	2	2	4	...	...
Cirrhosis of liver	...	...	...	...	...	...	...	...	...	...
Venereal diseases...	...	...	...	...	...	...	...	...	...	...
Premature birth ...	3	3	...	...	...	...	...	2	1	...
Diseases and accidents of parturition ...	4	...	...	...	1	3	...	2	2	2
Heart diseases	27	...	...	...	1	13	13	12	15	9
Accidents ...	3	...	...	...	1	1	1	...	3	2
Suicides ...	4	...	...	...	1	2	1	2	2	...
All other causes ...	127	23	9	5	3	27	60	73	54	33
All causes	301	37	28	28	15	92	101	169	132	63

TABLE V.—Infantile Mortality during the Year 1909.—Deaths from stated Causes in Weeks and Months under One Year of Age

CAUSE OF DEATH.		Under 1 week	1—2 weeks	2—3 weeks	3—4 weeks	Total under 1 month.	1—2 months	2—3 months	3—4 months	4—5 months	5—6 months	6—7 months	7—8 months	8—9 months	9—10 months	10—11 months	11—12 months	Total Deaths under 1 Year
All causes	<div> <div>Certified</div> <div>Uncertified</div> </div>	10	4	3	...	17	3	5	2	4	...	...	2	4	...	...	...	37
I. Common Infectious Diseases	<div> <div>Small-pox</div> <div>Chicken-pox</div> <div>Measles</div> <div>Scarlet fever</div> <div>Diphtheria: Croup</div> <div>Whooping cough</div> </div>	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
II. Diarrhoea Diseases	<div> <div>Diarrhoea, all forms</div> <div>Enteritis, Muco-enteritis, Gastro-enteritis</div> <div>Gastritis, Gastro-intestinal Catarrh...</div> </div>	...	...	...	...	...	1	1	...	2	...	...	...	...	...	...	...	2
III. Wasting Diseases	<div> <div>Premature Birth</div> <div>Congenital defects</div> <div>Injury at birth...</div> <div>Want of breast-milk, starvation</div> <div>Atrophy, debility, marasmus...</div> </div>	2	1	...	...	3	...	...	...	...	...	...	...	...	...	...	...	3
IV. Tuberculous Diseases	<div> <div>Tuberculous meningitis</div> <div>Tuberculous peritonitis: Tabes mesenterica</div> <div>Other tuberculous diseases</div> </div>	5	1	1	...	7	1	3	1	1	...	...	1	...	...	...	...	14
V. Other causes	<div> <div>Erysipelas</div> <div>Syphilis</div> <div>Rickets</div> <div>Meningitis (not tuberculous)</div> <div>Convulsions</div> <div>Bronchitis</div> <div>Laryngitis</div> <div>Pneumonia</div> <div>Suffocation, overlying</div> <div>Other causes</div> </div>	2	...	1	...	2	...	...	...	...	...	...	...	...	2	...	...	3
		...	1	...	...	1	...	...	...	...	...	...	...	2	...	...	...	4

Births in the year : Legitimate 449 ; illegitimate 20.

Population (estimated to middle of 1909), 23,000.

Deaths in the year of Legitimate Infants, 34 ; Illegitimate Infants, 3.

CAUSE OF DEATH.		Under 1 week	1—2 weeks	2—3 weeks	3—4 weeks	Total under 1 month.	1—2 months	2—3 months	3—4 months	4—5 months	5—6 months	6—7 months	7—8 months	8—9 months	9—10 months	10—11 months	11—12 months	Total Deaths under 1 Year
All causes		10	...	2	...	12	1	3	2	2	...	...	1	2	...	...	...	23
I. Common Infectious Diseases	Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Scarlet fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diphtheria : Croup	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...
II. Diarrhoeal Diseases	Whooping cough	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diarrhoea, all forms	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...
	Enteritis, Muco-enteritis, Gastro-enteritis	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...
III. Wasting Diseases	Gastritis, Gastro-intestinal Catarrh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Premature Birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Congenital defects	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	2
IV. Tuberculous Diseases	Injury at birth...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Want of breast-milk, starvation	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Atrophy, debility, marasmus...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
	Tuberculous meningitis	5	...	1	...	6	...	2	1	1	...	...	...	...	...	...	1	10
	Tuberculous peritonitis : Tabes mesenterica	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
V. Other causes	Other tuberculous diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Meningitis (not tuberculous)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Convulsions	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bronchitis	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	2
	Laryngitis	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	3
	Pneumonia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Suffocation, overlying	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
	Other causes	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1

District (or sub-division) of WEYMOUTH.

Population (estimated to middle of 1909), 11,750.

Deaths in the year : Legitimate 280 ; illegitimate 12.

Deaths from all Causes at all Ages, 169.

TABLE Vb.—Infantile Mortality during the Year 1909.—Deaths from stated Causes in Weeks and Months under One Year of Age

[illegible]

District (or sub-division) of MELCOMBE REGS.

Population (estimated to middle of 1909), 11,250.

District (or sub-division) of MELCOMB
Births in the year: Legitimate 169; illegitimate 8.

Deaths in the year of Legitimate Infants, 13; Illegitimate Infants, 1.

Il nuovo libro di

Factories, Workshops, Laundries, Workplaces, and Homework.

1.—Inspection.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections	Written Notices.	Prosecutions
Factories (Including Factory Laundries)	40	1	...
Workshops (Including Workshop Laundries)	186	16	...
Workplaces (Other than Outworkers' premises included in Part 3 of this Report)	65	6	...
Total	291	23	...

2.—Defects Found.

Particulars	Number of Defects.			Number of Prosecutions
	Found	Remedied	Refer'ed to H.M. Inspec'r	
<i>Nuisances under the Public Health Acts--</i>				
Want of cleanliness	8	8	...	...
Want of ventilation	2	1	...	...
Overcrowding	3	3	...	...
Want of drainage of floors	3	1	...	...
Other nuisances	8	...	...	...
Sanitary accommodation { insufficient	55	2	...	...
{ unsuitable or defective	8	6	...	...
{ not separate for sexes ... ..	...	...	...	...
<i>Offences under the Factory and Workshop Act—</i>				
Illegal occupation of underground bakehouse (s. 101) .. ..	...	..	...	...
Breach of special sanitary requirements for bakehouses (ss. 97 to 100) ... ..	...	...	...	...
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report)	...	...	...	...
Total	87	21	...	...

3.—Home Work.

Nature of Work	Outworkers' Lists, Section 107.							Outwork in unwholesome premises, Section 108.			Outwork in infected premises, Sections 109, 110.				
	Lists received from Employers				Address' of Outworkers received from other Council's		Prosecutions		Inspection of Outworkers' premises	In-stances	In-stances served	Prosecutions	In-stances	Orders made (S.110)	Prosecutions (Sections 109, 110)
	Twice in the year		Once in the year		Failing to keep or permit inspection of lists	Failing to send lists									
	Outworkers		Outworkers				Failing to keep or permit inspection of lists	Failing to send lists							
	Lists	Con-trac-tors	Work-men	Lists	Con-trac-tors	Work-men			Con-trac-tors	Work-men	Con-trac-tors	Work-men	Con-trac-tors	Work-men	Con-trac-tors	Work-men	Con-trac-tors	Work-men
Wearing apparel—	46	6	136	2	...	4	...	...	66	9	9	Nil	I	I	...
(1) making, &c.	I	...	...	...	...	...	...
(2) cleaning and washing
Lace, lace curtains and nets
Artificial flowers
Nets, other than wire nets
Tents
Sacks
Furniture and Upholstery	4	...	...	...	...	...	...	...	3	...	...	...	...	...	...
Fur pulling
Feather sorting
Umbrellas, &c.
Carding, &c., of buttons, &c.
Paper bags and boxes
Basket making
Brush making
Racquet and tennis balls
Stuffed Toys
File making
Electro-plate
Cables and chains
Anchors and Grapnels
Cart Gear
Locks, latches and keys
Pea picking
Total	50	6	136	2	...	4	...	...	70	9	9	Nil	I	I	...

Notices served on Occupiers as to keeping or sending lists: 3

4.—Other Matters.

Class.	Number
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	13
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)	...
Other ... ..	...
Underground Bakehouses (s. 101) :—	
Certificates granted during the year	Nil
In use at the end of the year	1

Education (Administrative Provisions) Act 1907.

ANNUAL REPORT

ON THE

ELEMENTARY SCHOOLS

OF THE

BOROUGH OF WEYMOUTH & MELCOMBE REGIS,

FOR THE YEAR 1909.

W. B. BARCLAY, L.R.C.P., D.P.H., Etc.,
School Medical Officer.

WEYMOUTH :
HARRY WHEELER, LTD.,
PRINTERS.

To the
Chairman and Members of the Education Committee
of the Borough of Weymouth and Melcombe Regis.

LADIES AND GENTLEMEN,

In accordance with the Education (Administrative Provisions) Act, 1907, I have the honour to present to you my Second Annual Report as School Medical Officer.

In the Memorandum issued by the Board of Education, the scope of the Annual Report of the School Medical Officer, is given, and is defined so as to cover the whole subject of School Hygiene.

As last year I propose to follow the headings designated as closely as possible.

The work of Medical Inspection has proceeded throughout the entire year, without friction or trouble. The co-operation of the Head Teachers of each School has tended greatly to this, as it has been our aim to interfere as slightly as possible with the routine work of the school, so has it been their aim to render our work as easy as possible, and to assist in every way in their power. The School Nurse has been a most valuable acquisition, and apart from her conscientious discharge of her multifarious duties, her kindly manner and tact, has tended greatly towards the achievements aimed at.

The bare record of visits paid, examinations made, notices sent, etc., bears no comparison with the actual work accomplished, as so very much is done by a word in season, of which no record is kept.

My thanks are due to all those mentioned, to the Clerk, and to the various Committees, for their assistance and support throughout the year.

Your obedient Servant,

W. B. BARCLAY.

MEDICAL INSPECTION.

The method first adopted has been continued, and has acted satisfactorily. The four larger schools have each an allotted day per week, in which one department is examined, thus each department is called upon once in three weeks, for about an hour, 9 a.m. to 10 a.m. The weighing and measuring of the height is done by the teachers in these schools, and in some of them a preliminary testing of the eyesight.

The two smaller schools are visited at longer intervals, the whole of the work being carried out by the Medical Inspector and Nurse.

Privacy for examination purposes is now secured in all the schools with the exception of St. Augustine's, no screens being provided there.

There is a continued and increasing response to the invitation to parents to be present at the examination, which is encouraged, as it gives an opportunity for a little advice to be given, as to the needs of some children, such advice being generally welcomed.

"Conscientious objectors" have been absent, but some still send a written objection to the school, stating that they can have their child examined by their own doctor. In the majority of these cases, we find that it is due to some notice having been sent previously concerning another child as having some defect, and from pressure having been applied to have this notice attended to. Some of these indeed have been cases where it has been necessary for the safety of the other scholars to ignore the objection and act under powers conferred by other Acts.

The total number of children primarily examined is 1,722. Males 886, females 836. This number does not yet complete the total number of children in the Borough Schools, as having been primarily examined since the Act came into force. In addition to this number there is daily a certain number of children re-examined for the purpose of learning whether defects of which the parents have been notified, have been remedied. Where defects are found that require medical attendance, a notice to this effect is sent. Where the defects are such as can be remedied by the parents, the notice is also to that effect.

Certain standards, applicable to all the conditions enquired into, were at the beginning of the year fixed, Class I., II. and III. No. I. represented the perfect condition, No. II. medium or slightly under the normal, and No. III. bad.

In the table given at the end it has not been possible to give these standards in detail and all are simply classed as being under No. I., or the perfectly normal condition. In some few cases in the text following, the numbers under bad or No. III., are given, as the figures otherwise might appear alarming.

Taken upon the whole, the results of the year's examinations have been re-assuring in every respect, in many cases the improvement on former conditions is most gratifying.

Taking the principal matters in detail, we notice first in the table of heights, that at all ages from 4 years to 10 the heights are greater than the average throughout Great Britain to the extent of 2·39 centimetres in males and 2·51 in females, or about one inch.

In weight at all ages, males are to a slight extent 0·62 kilogrammes, under the average, whilst females approach much nearer the average 0·09 kilogrammes less, equivalent respectively to 1·3 pounds and about one fifth of a pound.

The undernoted table gives the comparative heights and weights at each age.

Age last Birth-day.	MALES				FEMALES.			
	Height in centimetres.		Weight in kilogrammes.		Height in centimetres.		Weight in kilogrammes.	
	Wey-mouth.	Great Britain.	Wey-mouth.	Great Britain.	Wey-mouth.	Great Britain.	Wey-mouth.	Great Britain.
4	98·6	94·0	14·9	16·78	99	91·4	16·2	16·33
5	105·2	101·6	18·3	18·14	104·6	99·0	17·2	17·69
6	113·	109·2	21·2	20·19	110·3	106·6	19·3	18·94
7	117·5	116·8	22·5	22·5	113·5	111·7	21·85	21·55
8	124·	119·4	24·9	24·95	122·6	118·6	23·8	23·59
9	127·6	126·4	26·4	27·44	126·7	123·8	25·4	25·18
10	133·2	131·4	29·2	30·62	132·7	129·5	28·3	28·12
11	136·	135·9	30·5	32·66	137·4	134·6	31·5	30·85
12	141·5	139·7	33·9	34·81	143·6	141·0	34·2	34·7
13	146·5	144·8	37·5	37·42	147·8	146·7	38·1	39·46
<hr/>								
	*124·31	121·92	25·9	26·55	123·8	120·29	25·4	25·5

* Average.

In last year's report it was noted that the effect of the Medical Inspection had been to improve greatly the standard of cleanliness, both as regards bodily cleanliness and freedom from vermin, both on body and head. The improvement is even more manifest this year, and towards the end of the year we were able to state that, with the exception of some dozen families who were incorrigible, verminous conditions were absent. It was decided prior to the closure of the schools for Christmas, to prosecute, under the Children's Act, three parents who had relapsed time after time. In one case the Sanitary Authority had stepped in and compulsorily cleansed and disinfected.

138 or 8% and 149 or 8·6% respectively, body and head were found to come under Class II., of these numbers only eight and eleven were Class III.

The conditions now, may I think, be confidently stated to be most satisfactory, and much of this is due to the untiring exertions of the School Nurse, and the assistance of the teachers.

Clothing—sufficiency—it is to be noted that only 67 or 3·8% are classed as insufficient and only one of the total is marked Class III. Footgear 95 or 5·5% are marked insufficient, eight of these are Class III.

Perhaps these do not give an altogether true record, as there is a natural tendency to produce the best when they know they are coming up for examination.

Nutrition with its relation to physical development, requires our careful consideration. When it is noted that 94·9 or 55·1% (Males 55·8% Females 54·4%) do not reach what may be considered the normal standard, and that this is confirmed to a certain extent by the weights of the children being under the average, it seems needful to make further enquiry into the causes of such physical deterioration. Sufficient data have not yet been accumulated in this district to give any positive opinion, but I am of the opinion that diet has a considerable effect. Enquiries throughout the year point to the increasing habit of bringing up children to a great extent upon a diet consisting mainly of tea and bread, and the bread is generally of the whitest type.

There is not a sufficient change in variety given, neither is there given such foods as would tend more to increase the bone and muscle of the child.

Another serious item is the pernicious habit—more general than perhaps is supposed—of giving children sweets at all hours, which cloy the appetite. The number of children's tongues that are seen each day stained with the colouring matter of sweets is astonishing.

Another matter which seriously effects the stamina of children in their later school years, and also has a permanent effect upon their after life, has been previously brought to notice, that is the causing children to work (I do not allude to ordinary home work) before and after school hours. I cannot add to what I have previously written upon this subject, but its evil effect is apparent upon them physically. It is not a duty of the School Medical Officer to point to the report of the Royal Commission, upon the effect it has upon employment or unemployment in later years; but as it has an indirect or after effect upon future generations, I may be pardoned for bringing it to notice. In last year's report it was stated that a Committee would be formed to deal with this matter of employment, but at date of writing nothing has yet been accomplished.

Intimately connected with the previous subject is the condition of the teeth of the children and the remarks as to diet and sweets also refer to the exceptionally bad condition of the teeth of a large number.

1,107 or 66·1% have bad teeth, of this number 230 are marked as being under Class III. 890 or 51·6% have defective oral sepsis, that is the mouth and teeth do not seem to be cleansed each morning.

A great authority on this subject writes “that a healthy mouth means a healthy body.” And this trite statement cannot be gainsaid. It is also emphasised that there is a distinct connection between the condition of the teeth and tuberculosis of the lungs, through the glands of the neck. The danger to the digestion, from the inability to properly masticate food and render it fit for assimilation in the stomach, etc., is also of grave import, imperilling as it does the future health of the child.

When parents accompany the children for examination, advice is given them as to care and treatment and the need for special dental advice, but its only in rare cases that this advice is followed.

It is, in my opinion, desirable that provision should be made for simple dental treatment of school children.

I find that in most of your schools, instruction is given to a certain extent in the hygiene of the teeth. This might be further extended and supplemented by examining the children from time to time as to the cleansing of the teeth.

Defective vision was found in 171 children, equal to 9·8%. This is a great reduction in the numbers of last year, but is partly due to the fact that in the previous year all suspected cases of defective vision were put forward by the teachers, whilst this year, a more routine system has been followed. Of this number 128 received notice to have the defects seen to, and 60 have had this done. During the year the Committee arranged—by consent of the Board of Education—to assist necessitous cases to procure spectacles, where such were necessary.

20 have been assisted in this manner. Some few have been paid for entirely, others have partly paid, and the majority have had the money advanced, to be repaid by instalments.

Other defects found are of minor importance, and the numbers are few, with the exception of enlarged tonsils and the presence of adenoids. The former being present at the rate of 22·9% and the latter 7·2%. It is only where the lesions are gross and when the age and stamina of the child are suitable, that notices are served to have surgical advice. It has been generally adopted.

Contagious diseases have been ringworm and scabies, and in all only eight cases were found, affecting five families.

I pointed out nearly three years ago, the ravages in school attendance made by ringworm, and the need there was for some one to visit the houses and instruct parents in the carrying out of the treatment ordered. The enormous reduction in the number of cases now found—both by the systematic medical examination, and otherwise—points to the effect the appointment of your School Nurse has had. The financial aspect by increased school attendance and grant may also be taken into consideration. The nearly complete absence of tubercular disease, including rickets, is a source of gratification.

One enquiry marked mental condition, requires some slight explanation. The grades fixed are (1) bright and intelligent, (2) fair, (3) dull, (4) backward. The grade has to be fixed by the teacher from general observation in the class, and varies according to the idea of each individual teacher, therefore too much reliance must not be placed on the figures under each individual school, as denoting that the children in any one school are not as bright as in another. Out of 1,198 (new admittances amongst infants are not included), 520 or 43% are classed by the various teachers as under the normal standard of bright and intelligent, that is Class II., while 225 or 19% are classed as dull. Five children were certified as mentally defective and incapable of instruction in an ordinary Elementary School.

The question of provision of means of instruction for the mentally defective is one that must shortly be faced. The number in the town is insufficient to provide work for a special teacher, but a combination of surrounding districts would probably provide a sufficient number, but the subject is really one that the County Administration should move in. Practically all those in this town are capable of receiving instruction to a certain extent.

246 visits were paid to schools or departments of schools by the Medical Officer and 478 visits were made by the School Nurse to parents' houses. 6,198 medical certificates for non-attendance at school were issued by the Medical Officer during the year, an increase of nearly 3,000 upon last year.

SANITARY STATE OF SCHOOLS.

In last year's report I gave in extenso the conditions of all the schools, the rooms, light, ventilation, drains, etc.

A repetition of this is not necessary as with few exceptions, which are this year enumerated, the conditions remain as formerly. It was not expected that all the requirements mentioned or suggested could be carried out at once, but that each year a certain amount could be done, and this to some extent has been done.

ST. JOHN'S SCHOOLS.

The heating arrangements of the South and East Class Room have been altered by the addition of a stove, and this has secured a comfortable temperature in all states of the weather.

An extra stove has also been installed in the Infants' Room, with great benefit.

With these exceptions these schools remain as formerly. I would urge attention to the ventilation as mentioned last year.

The cleansing of the schools has improved to a very slight extent, and the requirements of the Committee are not carried out at all times.

ST. MARY'S SCHOOLS.

In consequence of the imminent changes in this school the recommendations for the improvements in ventilation, removal of platforms, increased and improved lavatory accommodation, and increased heating power in most of the rooms, etc., have not been urged, and this school in all departments remains practically as formerly. The daily cleansing is most inefficient.

HOLY TRINITY SCHOOLS.

No alterations have taken place during the past year. The only matter calling for urgent improvement, is improved lighting in the Western portion of what is termed the East room of the Boys' School, and further lavatory accommodation in the Boys' and Infants' Schools, and some improvement in the Girls' entrance and cloak room.

The improvements in ventilation mentioned last year, might follow these.

Cleansing of the Girls' and Infants' Schools has improved, though still leaving much to be desired; that in the Boys' School deteriorated so much that on my report the Managers took vigorous steps towards alteration.

ST. AUGUSTINE'S SCHOOL.

The good report as to general sanitary condition is fully maintained. The suggestion made, that the upper room from a medical point of view, was the better one of two, has been acted upon, and has been in general use throughout the year, and I understand has the approval of H.M.'s Inspector.

The daily cleansing is capable of considerable improvement.

CROMWELL ROAD SCHOOLS.

The favourable report generally on these schools has been maintained. The sloping banks adversely mentioned last year have had a concrete retaining wall built to keep up the earth, and the improvement on former conditions is great.

The subject of improvement of ventilation in the Boys' School has not been touched, neither the provision of a back draught preventer to the fresh air inlet in the girls' playground.

The daily cleansing is carried out in a very efficient manner.

ST. PAUL'S SCHOOL.

The adverse report as to the condition of the playground and the need for an asphalt path from the gateway to the entrance, and thence to the latrines, has to be renewed this year, also the condition of the latrines and the lavatory basins, and the curtain and gallery in the class room.

The cleansing is very badly carried out.

SCHOOL CLOSURE.

In February the Military Authorities, acting in co-operation with the Sanitary Authority, had the Schools of the Borough closed to all children living on Government land, in and around the Nothe.

In April, the Infant Schools at Holy Trinity and Cromwell Road were closed for six weeks, for an outbreak of mumps.

In July, in order to prevent the secondary cases of measles spreading from St. John's Infants' School, the whole of the Schools were closed, by order of the Sanitary Authority, a week earlier than usual for the summer vacation.

In November all infants under five years of age were excluded from Holy Trinity and Cromwell Road Schools, and St. Paul's closed entirely for a period of three weeks.

PHYSICAL EXERCISES.

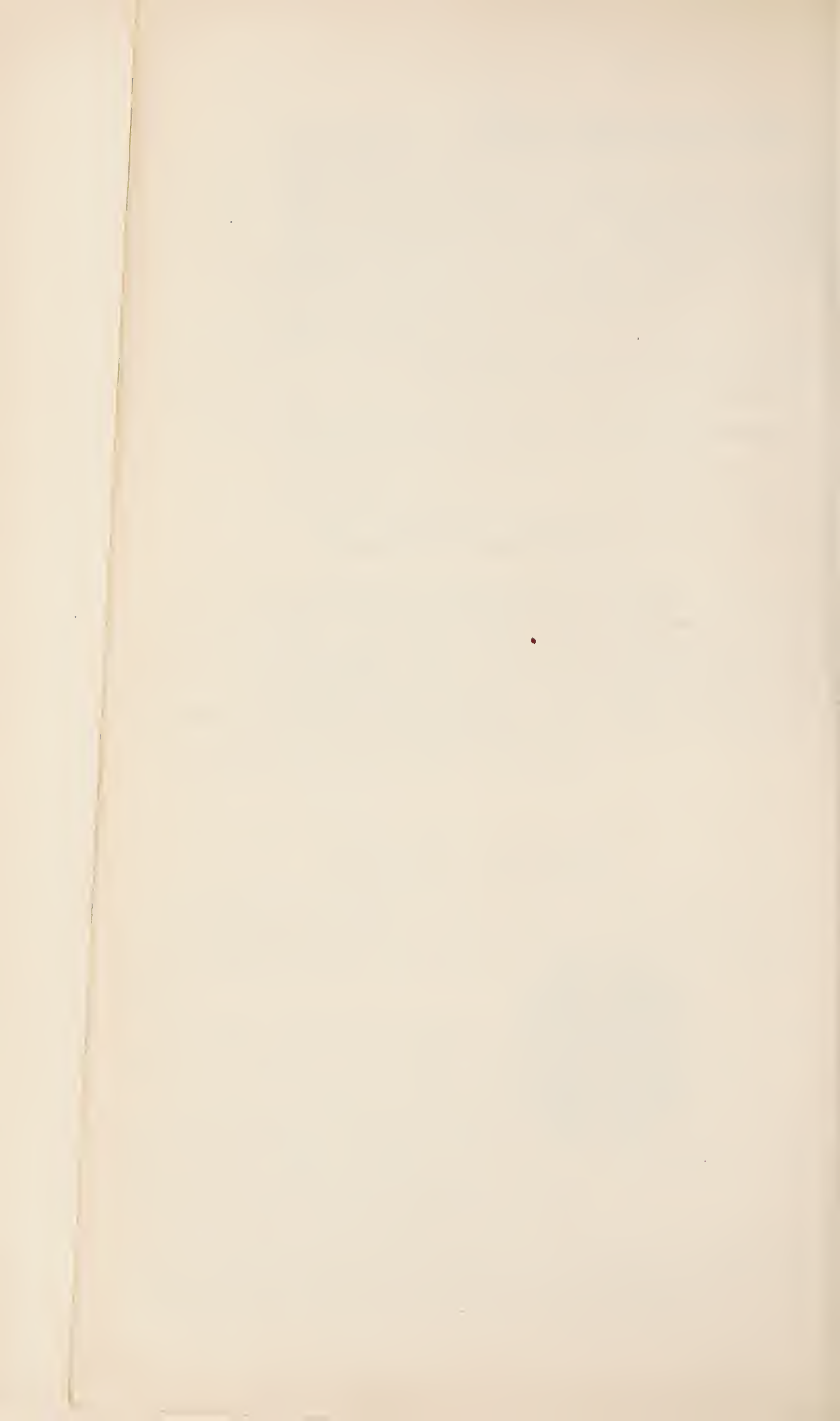
These are carried on at all the schools, and as opportunity occurs note is taken of the methods of carrying these out, and the results. Speaking generally these are satisfactory, but further opportunities of study must be had ere one can speak authoritatively of the "results" of physical or breathing exercises.

Open air schools as such are not carried on, though in the summer many of the classes are taught in the open.

I suggested last year that some provision should be made during the summer months for the systematic encouragement of sea-bathing amongst the scholars. To a certain extent the older boys look after themselves at the public screens at Greenhill, but are apt to overdo the time they spend in the water.

It would benefit the health of all concerned, if classes were systematically taken for bathing and swimming. For some years certain of the head female teachers have been urging the need for this for girls, and I again urge it upon the Committee that provision should be made for their accommodation on the shore.





STATISTICS OF AGE, HEIGHT, WEIGHT AND DEFECTS.

SCHOOL	DEPT.	Numbers Examined		Average Age	Height		Weight		Clothing			Unvaccinated	Nutrition	Cleansliness		Teeth		Nose and Throat						Ears		Eyes					Mental Condition	Contagious Disease	Deformity	Rickets	Tuberculosis	Lymph Glands	Heart	Lungs	Nervous System	Skin	Other Diseases or Defects	Mentally Defective	Exceptional Cases																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
					Inches	Centi- metres	Lbs.	Kilo- grams	Sufficiency	Cleansliness	Footgear			Body	Head	Condition	Cleansliness	Tonsils	Adenoids	Glands	Nasal Discharge	Mouth Breathing	Speech and Articulation	Hearing	Discharge or Deafness	Conjunc- tive	Lids	Squint	Other Defects	Vision																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Borough of Weymouth and Melcombe Regis.

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# ANNUAL REPORT

AND

RESULTS OF THE OBSERVATIONS

MADE

DURING THE YEAR, 1909,

AT THE

METEOROLOGICAL STATION, WESTHAM.

LATITUDE,  $50^{\circ} 36' 20''$  N.      LONGITUDE,  $2^{\circ} 26' 50''$  W.

HEIGHT ABOVE SEA LEVEL—22 FEET.

**I. J. BROWN, F.R.Met.Soc.,**  
**Honorary Borough Meteorologist.**

WEYMOUTH :  
HARRY WHEELER, LTD.,  
PRINTERS.

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To the  
Worshipful the Mayor, Aldermen, and Councillors  
of the Borough of Weymouth and  
Melcombe Regis.

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GENTLEMEN,

I have the honour to present you with my Twelfth Annual Report of the Meteorological Observations for the year 1909.

The station was inspected on July 15th by W. Marriott, Esq., from the Royal Meteorological Society, who found all the instruments in good working order, with the exception of the weather vane, which is very unsatisfactory, and Mr. Marriott suggests that if a new and better vane was purchased it should be fixed to the back of the post to which the Sunshine Recorder is now attached.

The Director of the Meteorological Office wrote respecting the minimum temperature and recommended that a second Minimum Thermometer should be purchased for the 6 p.m. reading, thus avoiding the necessity of disturbing the Thermometer recording the minimum readings for the twenty-four hours ending 9 a.m. This has been done.

Returns.—Weather telegrams have been forwarded throughout the year “in all 1,319” as follows: Daily to the Meteorological Office, *Daily Telegraph* and Weather Bureau, and from July to September inclusive to the *Daily Chronicle* and *Morning Leader*. Through the medium of the Meteorological Office and the Weather Bureau, our weather reports are distributed to a large number of daily and weekly papers throughout the kingdom. Weekly returns are sent to all the Local Papers. Full monthly reports to the Royal Meteorological Society, Meteorological Office, and to Dr. H. R. Mill, and a yearly return of Rainfall, etc., to the Dorset Field Club.

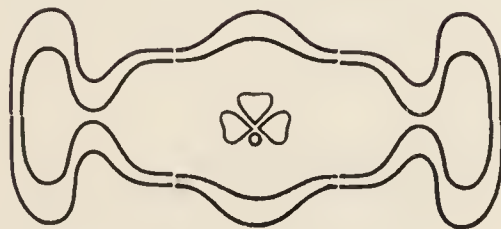
I have received a number of enquiries respecting the climate of our town, to all of which I have replied.

I am, Gentlemen,

Yours faithfully,

**I. J. BROWN**

2 St. Thomas Street,  
*February, 1910.*



**THE BAROMETER—9 a.m.**  
*Corrected for Temperature and Altitude.*

| 1909.         | Mean.           | Difference<br>from the<br>Average. | Highest.        | Date.  | Lowest.         | Date.  |
|---------------|-----------------|------------------------------------|-----------------|--------|-----------------|--------|
| January ...   | Inch.<br>30.200 | Inch.<br>+ .084                    | Inch.<br>30.651 | 4      | Inch.<br>29.444 | 15     |
| February ...  | 30.152          | + .223                             | 30.550          | 14     | 29.498          | 10     |
| March ...     | 29.534          | — .298                             | 30.012          | 12     | 29.148          | 6      |
| April ...     | 30.010          | + .062                             | 30.460          | 2      | 29.605          | 24     |
| May ...       | 30.116          | + .135                             | 30.411          | 3      | 29.501          | 26     |
| June ...      | 29.985          | — .156                             | 30.417          | 18     | 29.423          | 24     |
| July ...      | 30.008          | — .078                             | 30.315          | 20     | 29.564          | 25     |
| August ...    | 30.041          | —                                  | 30.318          | 11     | 29.440          | 18     |
| September ... | 30.054          | — .032                             | 30.276          | 3      | 29.754          | 7      |
| October ...   | 29.858          | — .102                             | 30.282          | 9      | 29.220          | 26     |
| November ...  | 30.045          | + .068                             | 30.402          | 24     | 29.447          | 30     |
| December ...  | 29.706          | — .251                             | 30.395          | 30     | 28.784          | 4      |
| Year ...      | 29.976          | — .021                             | 30.651          | Jan. 4 | 28.784          | Dec. 4 |



## TEMPERATURE.

| 1909.     | 9 a.m.<br><i>mean</i> | Max<br><i>mean</i> | Min<br><i>mean</i> | Range<br><i>mean</i> | Max<br>and<br>Min<br><i>mean</i> | Differ-<br>ence<br>from the<br>Average | Highest | Date   | Lowest | Date   | Relative<br>Humidity |
|-----------|-----------------------|--------------------|--------------------|----------------------|----------------------------------|----------------------------------------|---------|--------|--------|--------|----------------------|
| January   | 41.0                  | 46.2               | 37.0               | 9.2                  | 41.6                             | -2.4                                   | 52.1    | 17     | 28.3   | 27     | 86                   |
| February  | 39.2                  | 45.2               | 34.3               | 10.9                 | 39.7                             | -4.3                                   | 51.6    | 4      | 26.2   | 25     | 81                   |
| March     | 40.3                  | 45.8               | 35.8               | 10.0                 | 40.8                             | -3.2                                   | 53.8    | 29     | 23.0   | 4      | 88                   |
| April ... | 51.0                  | 55.0               | 43.1               | 11.9                 | 49.0                             | +1.7                                   | 66.9    | 10     | 33.5   | 2      | 72                   |
| May ...   | 55.3                  | 60.0               | 45.7               | 14.3                 | 52.8                             | -0.2                                   | 69.2    | 12     | 34.3   | 2      | 66                   |
| June ...  | 56.2                  | 62.1               | 49.5               | 12.6                 | 55.8                             | -2.1                                   | 70.4    | 17     | 44.2   | 8      | 76                   |
| July ...  | 60.9                  | 66.3               | 55.0               | 11.3                 | 60.6                             | -0.9                                   | 71.0    | 19     | 46.2   | 2      | 74                   |
| August    | 67.8                  | 70.2               | 55.6               | 14.6                 | 62.9                             | +1.4                                   | 86.0    | 9      | 48.2   | 5      | 58                   |
| September | 57.9                  | 63.2               | 51.5               | 11.7                 | 57.3                             | -1.3                                   | 70.1    | 12     | 42.2   | 3      | 79                   |
| October   | 54.7                  | 59.5               | 50.3               | 9.2                  | 54.9                             | +2.4                                   | 68.2    | 2      | 32.2   | 30     | 83                   |
| November  | 43.1                  | 49.6               | 38.5               | 11.1                 | 44.0                             | -3.2                                   | 57.9    | 3      | 29.1   | 23     | 84                   |
| December  | 42.0                  | 47.7               | 37.3               | 10.4                 | 42.5                             | -0.8                                   | 53.1    | 1      | 26.0   | 21     | 88                   |
| Year      | 50.8                  | 55.9               | 44.5               | 11.4                 | 50.2                             | -1.0                                   | 86.0    | Aug. 9 | 23.0   | Mar. 4 | 78                   |

# **BRIGHT SUNSHINE.**

*As registered by the Campbell-Stokes Lense Burning Recorder.*

| 1909.         | Actual<br>Sunshine | Difference<br>from the<br>Average | Greatest<br>Daily<br>Amount | Date   | Days on<br>which<br>sun<br>shone | Differ-<br>ence<br>from the<br>Average | Sunless<br>Days | Amount<br>of Cloud |
|---------------|--------------------|-----------------------------------|-----------------------------|--------|----------------------------------|----------------------------------------|-----------------|--------------------|
| January ...   | Hours<br>68.8      | Hours<br>+ 2.6                    | Hours<br>6.5                | 26     | 24                               | -3                                     | 7               | 0 to 10<br>6.7     |
| February ...  | 127.7              | +43.9                             | 9.2                         | 22     | 23                               | -1                                     | 5               | 5.1                |
| March ...     | 98.7               | -27.4                             | 9.0                         | 7      | 24                               | -2                                     | 7               | 7.1                |
| April ...     | 208.9              | +39.7                             | 13.5                        | 30     | 26                               | -1                                     | 4               | 4.8                |
| May ...       | 326.5              | +98.9                             | 14.5                        | 29     | 31                               | +2                                     | 0               | 3.9                |
| June ...      | 153.1              | -78.0                             | 14.0                        | 8      | 24                               | +3                                     | 6               | 6.1                |
| July ...      | 227.6              | -24.0                             | 14.0                        | 8      | 30                               | —                                      | 1               | 6.3                |
| August ...    | 275.5              | +41.9                             | 13.8                        | 8      | 30                               | -1                                     | 1               | 5.0                |
| September ... | 142.9              | -14.8                             | 12.3                        | 5      | 25                               | -1                                     | 5               | 6.5                |
| October ...   | 118.8              | +10.2                             | 9.3                         | 14     | 21                               | -5                                     | 10              | 7.2                |
| November ...  | 126.3              | +50.1                             | 8.3                         | 8      | 28                               | +7                                     | 2               | 5.4                |
| December ...  | 63.7               | +13.8                             | 7.0                         | 29     | 20                               | +2                                     | 11              | 7.3                |
| Year ...      | 1938.5             | +146.9                            | 14.5                        | May 29 | 306                              | —                                      | 59              | 5.9                |

# RAINFALL.

| 1909.         | Total Amount. | Difference from the Average. | Wet Days or falls of 0.01 in. or more. | Difference from the Average. | Mean Wet Day Rate of Rainfall. | Greatest fall in 24 hours | Date of greatest fall. |
|---------------|---------------|------------------------------|----------------------------------------|------------------------------|--------------------------------|---------------------------|------------------------|
|               | <i>Inch.</i>  | <i>Inch.</i>                 |                                        |                              | <i>Inch.</i>                   | <i>Inch.</i>              |                        |
| January ...   | 0.80          | -1.46                        | 11                                     | -4                           | 0.07                           | 0.18                      | 12                     |
| February ...  | 0.26          | -1.56                        | 3                                      | -6                           | 0.09                           | 0.23                      | 9                      |
| March ...     | 3.90          | +1.88                        | 25                                     | +11                          | 0.15                           | 0.95                      | 6                      |
| April ...     | 1.11          | -0.69                        | 11                                     | -1                           | 0.10                           | 0.45                      | 19                     |
| May ...       | 1.16          | -0.52                        | 7                                      | -4                           | 0.17                           | 0.47                      | 24                     |
| June ...      | 3.14          | +1.53                        | 17                                     | +7                           | 0.18                           | 0.65                      | 29                     |
| July ...      | 1.69          | +0.01                        | 11                                     | +1                           | 0.29                           | 0.94                      | 27                     |
| August ...    | 2.28          | -0.13                        | 10                                     | -1                           | 0.22                           | 0.92                      | 17                     |
| September ... | 2.16          | +0.10                        | 14                                     | +3                           | 0.15                           | 0.98                      | 10                     |
| October ...   | 6.30          | +2.51                        | 23                                     | +7                           | 0.27                           | 1.21                      | 26                     |
| November ...  | 0.68          | -2.27                        | 7                                      | -7                           | 0.10                           | 0.29                      | 29                     |
| December ...  | 4.20          | +2.31                        | 21                                     | +5                           | 0.20                           | 1.17                      | 16                     |
| Year ...      | 27.68         | +0.99                        | 160                                    | +11                          | 0.17                           | 1.21                      | Oct. 26                |



## THE WINDS.

*Observed daily to 16 points, but in Table reduced to 8 points of the compass.*

| Velocity in Miles<br>per hour. |                 | Direction. Number of Observations, 9 a.m. and 6 p.m. |      |    |      |    |     |     |      |       |  |
|--------------------------------|-----------------|------------------------------------------------------|------|----|------|----|-----|-----|------|-------|--|
|                                |                 | N.                                                   | N.E. | E. | S.E. | S. | SW. | W.  | N.W. | Calms |  |
| 1909                           | Mean<br>per day |                                                      |      |    |      |    |     |     |      |       |  |
| January ...                    | 317             | 9                                                    | 7    | 7  | 4    | 3  | 3   | 21  | 7    | 1     |  |
| February ...                   | 320             | 11                                                   | 11   | 8  | 11   | 1  | 3   | 6   | 5    | 0     |  |
| March ...                      | 348             | 9                                                    | 2    | 8  | 2    | 10 | 13  | 10  | 8    | 0     |  |
| April ...                      | 370             | 1                                                    | 1    | 11 | 7    | 6  | 10  | 18  | 6    | 0     |  |
| May ...                        | 389             | 2                                                    | 1    | 13 | 8    | 9  | 4   | 23  | 2    | 0     |  |
| June ...                       | 305             | 6                                                    | 12   | 6  | 0    | 4  | 8   | 21  | 2    | 1     |  |
| July ...                       | 419             | 9                                                    | 0    | 0  | 0    | 2  | 4   | 37  | 9    | 1     |  |
| August ...                     | 268             | 7                                                    | 2    | 4  | 3    | 6  | 10  | 21  | 6    | 3     |  |
| September ...                  | 309             | 2                                                    | 19   | 8  | 2    | 5  | 3   | 14  | 5    | 2     |  |
| October ...                    | 472             | 3                                                    | 3    | 4  | 1    | 2  | 12  | 28  | 9    | 0     |  |
| November ...                   | 357             | 6                                                    | 20   | 10 | 1    | 3  | 2   | 8   | 10   | 0     |  |
| December ...                   | 371             | 11                                                   | 1    | 11 | 2    | 2  | 3   | 19  | 13   | 0     |  |
| Year ...                       | 355             | 76                                                   | 79   | 90 | 41   | 53 | 75  | 226 | 82   | 8     |  |